The Impact of Alternative Inflation Adjustments on CPS ASEC Income Statistics*

Matthew Unrath, U.S. Census Bureau Jessica Semega, U.S. Census Bureau Melissa Kollar, U.S. Census Bureau

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Summary

In its annual report Income and Poverty in the United States, the U.S. Census Bureau presents historical income and earnings statistics that are adjusted for inflation. A variety of price indices produced by federal statistical agencies are available for this adjustment. Currently, the income and earnings series are adjusted using derivations of the Consumer Price Index for All Urban Consumers (CPI-U), including the CPI-U Research Series (R-CPI-U-RS), produced by the U.S. Bureau of Labor Statistics. However, the CPI-U might overstate the real change in the cost of living because it does not fully account for consumer substitution among goods and services as relative prices change. Chained price indices address this potential bias. This paper documents the implications of using such indices to adjust income and earnings based on suggestions by a recent Interagency Technical Working Group on Consumer Inflation Measures. This paper compares the use of two alternative inflation series -- the Chained Consumer Price Index for all Urban Consumers (C-CPI-U) produced by the Bureau of Labor Statistics and the Personal Consumption Expenditures Price Index (PCEPI) produced by the Bureau of Economic Analysis -to the current method to understand the impact on historical median income and earnings dating back to 1967. Using the combined C-CPI-U and PCEPI measure, inflation-adjusted median household income increased approximately 45 percent between 1970 and 2020, compared to 30 percent according to the current method. Inflation-adjusted median earnings for full-time, yearround workers increased 32 percent between 1974 and 2020 using the chained measures as compared to 18 percent using the current method. There were no statistically significant differences in inflation-adjusted annual median household income or earnings growth among full-time, year-round workers using the chained measures compared to the current method between 2015 to 2020.

^{*} This paper was developed to promote research and advancements in our understanding of income measurement. All errors are those of the authors. Any views expressed, including those related to statistical, methodological, technical, or operational issues, are solely those of the authors and do not necessarily reflect the official positions or policies of the U.S. Census Bureau. The U.S. Census Bureau reviewed this data product for unauthorized disclosure of confidential information and approved the disclosure avoidance practices applied to this release: CBDRB-FY21-282. All comparative statements have undergone statistical testing and are statistically significant at the 90 percent confidence level unless otherwise noted.

1. Introduction¹

In its annual report *Income and Poverty in the United States*, the U.S. Census Bureau presents historical income and earnings statistics from the Current Population Survey's Annual Social and Economic Supplement (CPS ASEC) that are adjusted for inflation. A variety of price indices produced by federal statistical agencies are available for this adjustment.

Currently, the report uses the Consumer Price Index Research Series using Current Methods (R-CPI-U-RS), produced by the Bureau of Labor Statistics (BLS), to inflation adjust median income and earnings statistics from 1978 onward.² The R-CPI-U-RS retroactively incorporates the numerous improvements made to the most well-known and widely-used inflation index, the Consumer Price Index for All Urban Consumers (CPI-U). For years 1967 through 1977, Census uses inflation estimates from the CPI-U-X1 series, an experimental series that preceded the R-CPI-U-RS.³ For prior years, Census uses a backwards projection of the R-CPI-U-RS, assuming the same ratio between the R-CPI-U-RS and CPI-U as there was in 1967. Hereafter, these estimates are referred to as Census's "current method" for inflation adjusting historical income and earnings estimates.

Despite the improvements made to the CPI-U and incorporated into the R-CPI-U-RS, neither measure fully accounts for how consumers shift consumption in response to changes in relative prices, and thereby both risk overstating increases in the cost of living. Inflation measures that better account for consumer substitution are known as "chained" measures. Examples include the Chained Consumer Price Index for Urban Consumers (C-CPI-U) produced by BLS and the Personal Consumption Expenditures Price Index (PCEPI) produced by the Bureau of Economic Analysis (BEA). Instead of measuring how the same mix of goods and services changes from a certain base period, these measures identify how consumers' cost-of-living changes in adjacent periods.

By better accounting for current consumer behavior, the C-CPI-U and PCEPI are widely considered to be less biased measures of price-adjusted income and earnings. A recent report issued by an Interagency Technical Working Group on Consumer Inflation Measures (ITWG, 2021) outlined a list of principles related to the proper application of alternative price indices and provided a flowchart to help users choose the best index for a particular purpose. Census Bureau's need to inflate historical median nominal household income was provided as an example of how to apply these principles and use the flowchart. In this example, the ITWG report suggests that following these principles the Census Bureau should adjust its historical median

¹ This paper presents data on median income and earnings in the United States based on information collected in the 1968 to 2021 Current Population Survey Annual Social and Economic Supplements (CPS ASEC) conducted by the Census Bureau. The source and accuracy of the estimates, information on confidentiality protection, sampling error, non-sampling error, and definitions are available at: https://www2.census.gov/programs-surveys/cps/techdocs/cpsmar21.pdf.

² In 2001, the U.S. Census Bureau began using the CPI-U-RS to adjust historical income estimates for changes in the cost of living (DeNavas-Walt et al, 2001). In 2021, the Bureau of Labor Statistics (BLS) renamed the Research Series (CPI-U-RS) the Retroactive Series (R-CPI-U-RS). In this paper and all other associated content, it is referred to as the R-CPI-U-RS. While the R-CPI-U-RS is used to adjust the historical income and earnings series, the CPI-U is used to adjust poverty thresholds.

³ BLS created the CPI-U-X1 to estimate the inflation rate in the CPI-U when applying the current rental equivalence method of measuring the cost of homeownership for years prior to 1983.

income series using the C-CPI-U from 2000 onward, the PCEPI for the period 1959-1999, and the CPI-U for the pre-1959 period.

This paper discusses the motivation for this potential change, summarizes the relative merits of these alternative inflation indices, and documents implications for the CPS ASEC's historical estimates of income and earnings. Specifically, the paper reports trends in median income and earnings using these alternative inflation indices for households and workers as well as key demographic groups, such as sex, race and Hispanic origin, householder age, and full-time, year-round workers. The paper also includes a discussion of logistical issues that Census staff face in publishing inflation-adjusted historical estimates of income and earnings, including whether the C-CP-U is available in time to meet the production schedule of the *Income and Poverty in the United States* report each September.

2. Alternative inflation indices

There are multiple inflation measures – each with its own function, scope, coverage, and formula – available to the Census Bureau for the purpose of adjusting its historical median income series. The Interagency Technical Working Group report considered multiple measures that the Census Bureau could use, including the CPI-U (1913-present), R-CPI-U-RS (1978-present), the PCEPI (1959-present), the C-CPI-U (2000-present), the *initial* C-CPI-U values (2000-present), the CPI-W (1978-present), and the R-CPI-E (1982-present). Alongside the currently used measure (R-CPI-U-RS), this paper considers the two chained indices: the C-CPI-U and the PCEPI. The following section summarizes each of these measures, as well as the CPI-U, and highlights their relative strengths and weaknesses.

To produce its inflation measures, BLS collects price information for more than 80,000 goods and services from around 6,000 housing units and 23,000 retail outlets across 75 geographical areas at least every other month. These prices are collected through a combination of in-person visits and telephone calls to households and establishments, as well as through internet research. BLS divides these tens of thousands of goods and services into 243 groups (known as item strata) from 32 local areas, for a total of 7,776 item-area combinations.⁴

Separately, and in partnership with the Census Bureau, BLS collects information on consumer spending patterns from the Consumer Expenditure Survey (CE). The CE is a monthly survey of spending patterns from thousands of households across the country. BLS uses these data to identify the share of overall consumer spending dedicated to each item strata.

a. CPI-U

CPI-U is the most widely used and recognized inflation measure. The index is based on spending patterns of the broadest subset of the US population (nearly all residents in urban and metropolitan areas) and covers the longest period of time (1913-present).⁵ In 1999, BLS

⁴ Refer to the CPI handbook at <<u>https://www.bls.gov/opub/hom/cpi/</u>> for more information about how households and establishments are sampled and how BLS accounts for changes in available goods and services, outlets, and product quality.

⁵ The CPI does not track spending patterns of people residing in nonmetropolitan rural areas, such as those in farm households, people in the Armed Forces, or those in institutions, such as prisons and mental hospitals.

introduced the R-CPI-U-RS, which, as discussed above, is a modified historical series that incorporates the improvements made to the CPI-U from 1978 onward.

To produce a single index from all monthly item-level price changes, BLS weights each change according to that item-area's share of total consumer expenditures, as measured in the CE, in a specified base period. Specifically, price changes are aggregated by computing either a geometric mean or a ratio of arithmetic means (a Lowe, or modified Laspeyres, index). The expenditure share weights are updated every two years and remain fixed during the interim period. In effect, this means the CPI-U and the R-CPI-U-RS assume that consumers purchase the same quantities of goods and services across this two-year window, regardless of how the cost of those goods and services might change. Not accounting for the fact that consumers might more rapidly substitute toward relatively inexpensive items (less of a good if the price rises and more if it falls) means the index risks overstating increases in consumers' actual cost of living (known as upper-level substitution bias).

b. C-CPI-U

In 2002, BLS introduced the Chained Consumer Price Index for all Urban Consumers (C-CPI-U). The C-CPI-U is available back to 2000. BLS uses the same data on prices and spending patterns, as well as the same sample of US residents, to construct the C-CPI-U as it does for the CPI-U. The difference between the two indices is that the C-CPI-U is designed to account for how consumers adjust spending when relative prices change.⁷ The index aggregates price changes using a Tornqvist formula and weights based on consumers' *current* expenditures, as opposed to the CPI-U, which, as explained above, weights items based on expenditure shares from a specified based period.⁸ By weighting price changes according to consumers' current consumption, the index better reflects changes in consumers' actual cost-of-living.

Since expenditure data for the reference month are not immediately available, BLS releases initial estimates of the C-CPI-U alongside the monthly CPI-U estimates. These estimates are based on preliminary weights, calculated from a model of consumer spending response. When additional expenditure data become available, BLS revises these weights and publishes new interim estimates every quarter. C-CPI-U values are not finalized until the expenditure data from all relevant quarters becomes available, which can be 10 to 12 months after publication of the initial estimates.

c. Personal Consumption Expenditures Price Index (PCEPI)

The Bureau of Economic Analysis (BEA) also produces price indices, including the Personal Consumption Expenditures Price Index (PCEPI), which tracks changes in the prices of a wide array of goods and services purchased by consumers, as well as by non-profit institutions that serve

⁶ The CE's sample size is too small to measure shares within item-area bins in any given month, so these shares are also averaged over a longer reference period (currently 24 months). The biennial weighting updates started in 2002. Between 1998 and 2002, weights were calculated with a 1993-1995 base period. Before then, weights were updated intermittently.

⁷ Refer to <www.bls.gov/cpi/additional-resources/chained-cpi-questions-and-answers.htm>.

⁸ See Kurtzon (2021) for a discussion of why the alternative formula matters less to the differences between the CPI-U and the C-CPI-U than the different weighting scheme.

households.⁹ BEA does not collect price or consumption data on its own, so the PCEPI aggregates data collected by BLS to construct the CPIs and Producer Price Indexes (PPIs). The PCEPI is available from 1959 onward; it is the only chained inflation index whose series is available for the entire timespan of the Census Bureau's historical median income series using the CPS ASEC.

The PCEPI's primary application is macroeconomic analysis, not consumer-focused purposes like the application considered here. For example, the PCEPI incorporates consumption data from non-consumers and tracks spending patterns using the PPI, as opposed to the CE. Though it largely tracks the same goods and services, some items in CPI-U are out of scope for the PCEPI, and vice versa.

Like the C-CPI-U, the PCEPI accounts for substitution when relative prices change, though the PCEPI uses a different formula (Fisher-Ideal) for aggregating price changes than the CPI-U (Lowe) and the C-CPI-U (Tornqvist). Like the C-CPI-U, the PCEPI aggregates price changes using weights according to contemporaneous expenditure shares, but unlike the C-CPI-U, those shares are estimated from surveys of businesses, not households.

The advantage of the PCEPI relative to the C-CPI-U is it provides a consistent inflation series that spans the entire historical income series. The disadvantage is that the PCEPI is not meant for household and consumer focused analyses, so the input prices and sample are not as appropriate to this application.

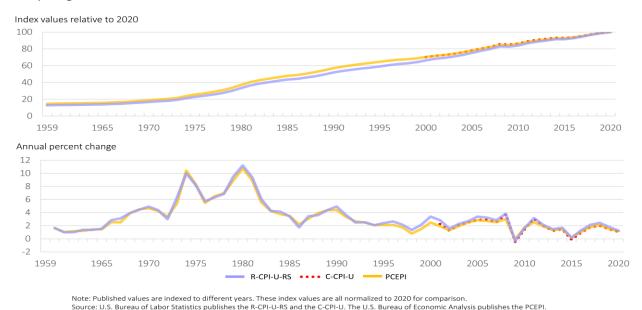
3. Results

Figure 1 compares the estimated inflation indices of the R-CPI-U-RS, C-CPI-U, and PCEPI (normalized to year 2020) and compares the annual percent change within each index from 1959 to 2020. Recall that the C-CPI-U is only available from 2000 onward, and the PCEPI series begins in 1959. Between 2000 and 2020, the compound annual growth rate in the C-CPI-U and the PCEPI have been an average of 0.27 percentage points and 0.29 percentage points lower than for the CPI-U, respectively. The compound annual growth rate in prices as measured by the C-CPI-U was 1.79 percent, as compared to 1.77 percent in the PCEPI, 2.06 percent in the CPI-U, and 2.07 percent in the R-CPI-U-RS. These small annual differences have a limited effect on estimates of annual growth in median income, but compound to have large impacts on estimates of inflationadjusted income over longer periods of time.

⁹ Refer to <www.bea.gov/data/personal-consumption-expenditures-price-index>.

¹⁰ A simple arithmetic mean is not appropriate for averaging percent changes in these indices for multiple periods. For example, the average of a 50% increase in t=1 followed by a 50% decrease in t=2 does not imply an average change equal to zero. Instead, the more appropriate rate of return formula to calculate the compounded average percent change over this period is applied.

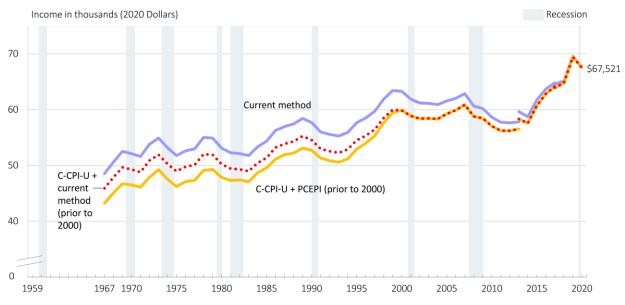
Figure 1. Comparing Price Index Values: 1959 to 2020



The following figures and tables report trends in historical median income and earnings for households and workers using three different inflation series: (1) the current method, (2) the C-CPI-U from 2000 onward combined with the current method for prior years, and (3) the C-CPI-U from 2000 onward combined with the PCEPI for prior years. By relying solely on chained indices, the latter series is the one that best aligns with the ITWG's recommendations. Accordingly, this paper focuses its comparisons between the chained-only series and the current method.

Figure 2 and Table 1 present trends in historical median household income from 1967 onward. The figure makes clear how the impact of the alternative inflation indexes grows over time. Real median household income in 2019 adjusted to 2020 dollars using the R-CPI-U-RS (current method) is not statistically different than the estimate using the C-CPI-U. For 2000, the median income estimate in 2020 dollars adjusted using the R-CPI-U-RS (current method) is \$63,292, which is 5.7 percent higher than the estimate (\$59,876) adjusted using the C-CPI-U. For 1967, the estimate of median household income in 2020 dollars using the current method (\$48,537) is 12.3 percent higher than the estimate using the C-CPI-U and the PCEPI for earlier years (\$43,236).

Figure 2. Household Median Income using Alternative Price Indices: 1967 to 2020



Note: Households as of March of the following year. The data for 2017 and beyond reflect the implementation of an updated processing system. The data for 2013 and beyond reflect the implementation of the redesigned income questions. Inflation-adjusted estimates may differ slightly from other published data due to rounding.

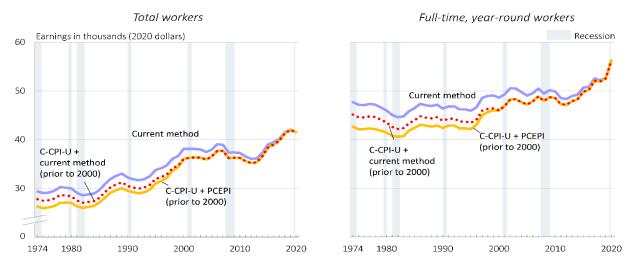
Source: U.S. Census Bureau, Current Population Survey, 1968 to 2021 Annual Social and Economic Supplements (CPS ASEC).

Table 2 provides historical median income estimates using the different inflation indices in 2020 dollars by race and Hispanic origin, and Table 3 provides the same estimates for householders age 65 years and over.

Figure 3 and Table 4 report trends in real median earnings among total and full-time, year-round workers according to the three inflation measures from 1974 onward. The real median earnings of full-time, year-round workers in 1974 is 11.8 percent higher when using the current method than when using the combined C-CPI-U and PCEPI (prior to 2000) and 5.7% higher using the combined C-CPI-U and CPI-U-RS (prior to 2000).¹¹

¹¹ Standard errors for the 1974 median estimates of full-time, year-round workers (both sexes combined) are not available, but standard errors of median earnings for full-time, year-round working men and women are available historically. To determine statistical uncertainty for the combined sex median, an average of the ratio between the standard errors of the 1974 median and the 2020 median of full-time, year-round working men and women was applied to the 2020 median standard error of both sexes combined to create a 1974 standard error.

Figure 3. Median Earnings Using Alternative Price Indices: 1974 to 2020



Notes: Workers aged 15 and older as of March of the following year with earnings. The data for 2017 and beyond reflect the implementation of an updated processing system. The data for 2013 and beyond reflect the implementation of the redesigned income questions.

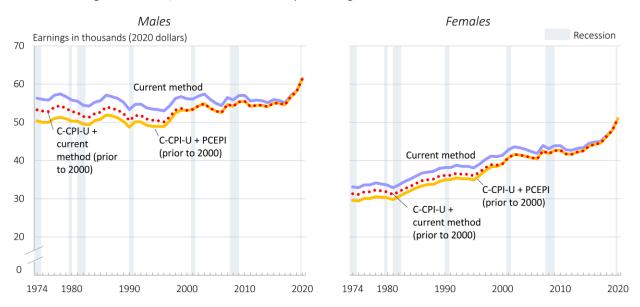
Source: U.S. Census Bureau, Current Population Survey, 1975 to 2021 Annual Social and Economic Supplements (CPS ASEC).

Figure 4 reports trends in real median earnings among full-time, year-round workers by sex according to the three alternative inflation measures from 1974 to 2020 (refer to Table 5 for estimates). Table 6 provides median earnings estimates in 2020 dollars using the different inflation indices for all workers by sex.

Note that applying the same inflation indices to each group's median income estimates does not affect relative differences between groups in any given year, since the original estimates are simply being multiplied by a common inflation factor. In other words, using an alternative inflation index can change the levels in a group's median income in any given year, but it does not change the ratio of that group's income to any other group's income in the same year. This means that the proposed change would have no effect on inequality measures like the Gini coefficient or percentile ratios.

Figure 4.

Median Earnings of Full-time, Year-round Workers By Sex Using Alternative Price Indices: 1974 to 2020

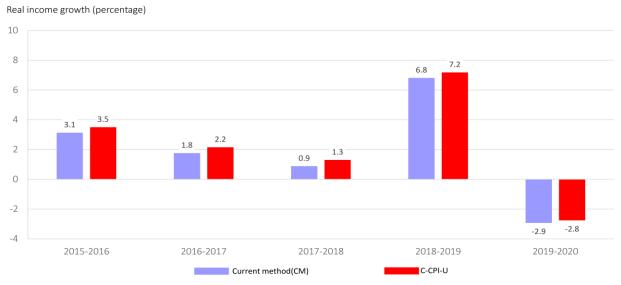


Notes: Workers aged 15 and older as of March of the following year with earnings. The data for 2017 and beyond reflect the implementation of an updated processing system. The data for 2013 and beyond reflect the implementation of the redesigned income questions.

Source: U.S. Census Bureau, Current Population Survey, 1975 to 2021 Annual Social and Economic Supplements (CPS ASEC).

Figure 5 reports estimates of annual growth in real median household income according to the current method and the C-CPI-U from 2015 onward. While annual growth in inflation adjusted income appears slightly higher according to the chained price index (since chained indices tend to estimate slightly lower rates of inflation), none of the within-year differences are statistically significant.

Figure 5.
Real Year-Over-Year Income Growth Using Alternative Price Indices: 2015 to 2020

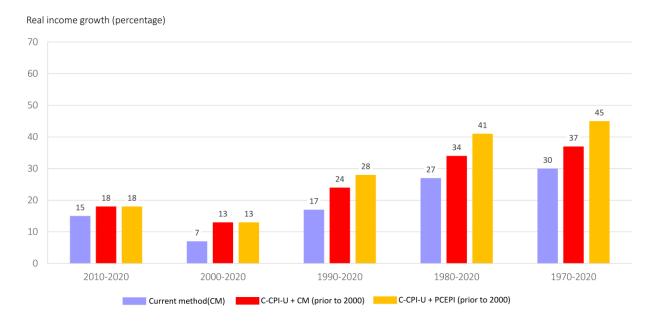


Note: Households as of March of the following year. The data for reflect the implementation of an updated processing system. Inflation-adjusted estimates may differ slightly from other published data due to rounding.

Source: U.S. Census Bureau, Current Population Survey, 2016 to 2021 Annual Social and Economic Supplements (CPS ASEC).

Figure 6 reports the growth in real median household income according to the three alternative measures of inflation over multiple decade spans. Different growth rates are reported from 1970 onward, 1980 onward, and so on. Using the combined C-CPI-U and PCEPI measure, inflationadjusted median income appears to have increased by approximately 45 percent between 1970 and 2020, compared to only 30 percent according to the current measure.

Figure 6. Real Income Growth Using Alternative Price Indices Over the Decades: 1970 to 2020



Source: U.S. Census Bureau, Current Population Survey, 1971 to 2021 Annual Social and Economic Supplements (CPS ASEC).

Figure 7 reports estimates of annual growth in real earnings among full-time, year-round workers according to the current method and the C-CPI-U from 2015 onward. Again, annual growth in inflation adjusted earnings appears slightly higher (or declines appear slightly lower) according to the chained price index, but none of the within-year differences are statistically significant.

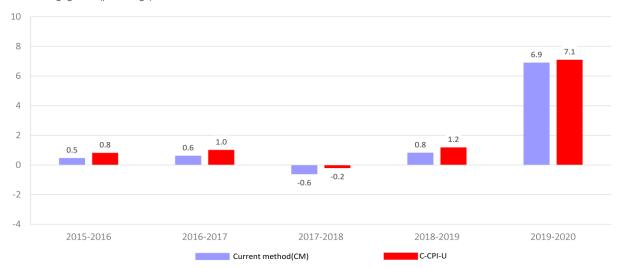
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¹² The Census Bureau advises using caution when comparing income estimates from 2020 to years prior due to breaks in series. Survey redesigns and new processing systems can produce changes in income estimates that do not reflect actual differences in real income from one year to the next. For more information about recent examples of breaks in the income series, refer to < https://www.census.gov/library/stories/2018/09/highest-median-household-income-on-record.html and < https://www.census.gov/library/stories/2019/09/us-median-household-income-not-significantly-different-from-2017.html >. This paper assumes a consistent series, in order to demonstrate the impact that different inflation measures have on long-term income growth rates.

Figure 7.

Real Year-Over-Year Earnings Growth Among Full-Time, Year-Round Workers Using Alternative Price Indices: 2015 to 2020





Note: People 15 and over as of March of the following year with earnings. The data for 2017 reflect the implementation of an updated processing system. Inflation-adjusted estimates may differ slightly from other published data due to rounding.

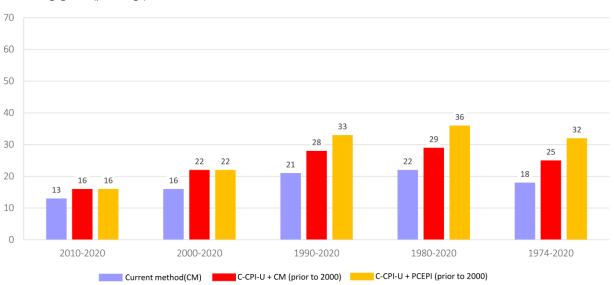
Source: U.S. Census Bureau, Current Population Survey, 2016 to 2021 Annual Social and Economic Supplements (CPS ASEC).

Figure 8 reports earnings growth rates over multiple decade spans among full-time, year-round workers. Between 2000 and 2020, real earnings growth was around 16 percent according to the current method, compared to 22 percent according to the C-CPI-U. Between 1974 and 2020, real earnings growth was about 18 percent according to the current method, compared to nearly 32 percent using the combined C-CPI-U and PCEPI measure.

Figure 8.

Real Earnings Growth of Full-time, Year-round Workers Using Alternative Price Indices Over the Decades: 1974 to 2020





Source: U.S. Census Bureau, Current Population Survey, 1975 to 2021 Annual Social and Economic Supplements (CPS ASEC).

4. Discussion

By better addressing substitution bias, chained inflation measures like the C-CPI-U and PCEPI are thought to be better measures of changes in consumers' actual cost of living. Indeed, BLS's ongoing efforts to narrow the window in which expenditure shares are updated attests to how data lags can degrade cost-of-living measures. The Interagency Technical Working Group report further discusses, and cites numerous academic papers, that argue why these measures are more appropriate measures to inflation adjust historical incomes. Between the two chained measures, the C-CPI-U better matches the sample Census uses to estimate person and household level median income, so it's preferable to the PCEPI, even though it is only available from 2000 onward.

A common objection raised to using C-CPI-U and the PCEPI is that these chained measures are not representative of the spending patterns of the low-income population. For example, these consumers may spend a greater share of their household budget on higher-inflation items, like energy and rent, and have less ability to adjust their consumption when prices change than the general population. Since these measures tend to document lower year-over-year inflation than the standard measure, they might further understate the actual change in cost of living faced by households in or near poverty, meaning they are especially inappropriate for adjusting poverty thresholds or cost-of-living adjustments for benefit programs. As discussed in the ITWG report, this criticism is ultimately about proper population scope. This criticism is less relevant to the application of inflating median income. The proposed adjustment is only to historical time series of median income and earnings, which is not intended to reflect changes in real income or cost of living for low-income households. The adjustment would not affect official poverty measure calculations or benefit rules. Census will continue to make the underlying microdata and current dollar median statistics available to all data users, who can inflation adjust income variables and statistics using their preferred indices.

The production challenge of using preliminary C-CPI-U values to inflation adjust historical median incomes need not preclude adoption of the chained measure. As shown in Figure 9, preliminary values closely track final values. Figure 10 plots the annual percent change in median household income using the final versus initially published values of the C-CPI-U; none of the within-year differences are statistically significant. Census also updates the historical income tables with the release of each new report to account for a new year of data and inflate historical estimates, meaning inflation adjusted estimates included in past publications do not match those in tables available on Census's website. In a handful of years, BLS has also retroactively revised its R-CPI-U-RS estimates, and Census incorporated those revisions into future estimates of historical

¹³ If consumers do not adjust spending when prices change, the formula used to construct C-CPI-U resolves to the same one used to calculate the CPI-U. The issue is not with the formulas themselves, but how much the propensity to substitute in response to price changes varies across the income distribution. Average inflation measures necessarily mask heterogeneity in these consumption patterns. The ITWG report points to multiple studies that endeavored to measure an inflation rate particularly for households in or near poverty.

¹⁴ Since the PCEPI weights price changes according to current consumer spending, the PCEPI is also routinely revised, like the C-CPI-U, as those expenditure data becomes available. Since the PCEPI would only be used to inflation adjust median statistics prior to 2000 before the C-CPI-U is available, however, these revisions do not present the same issue.

median income. That previously published estimates would not match those published in future reports or posted on Census's website was not a major production concern.

Figure 9. Comparing the Chained CPI-U Initial and Final Monthly Index Values: 2000 to 2020

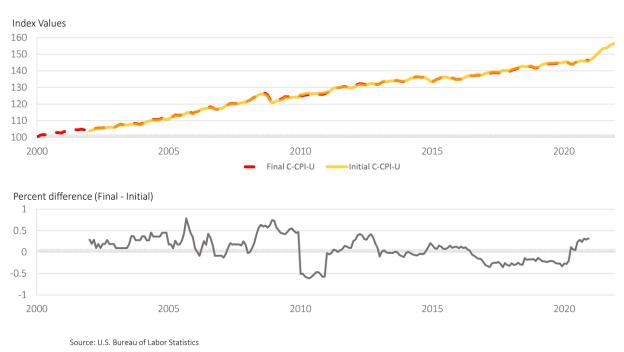
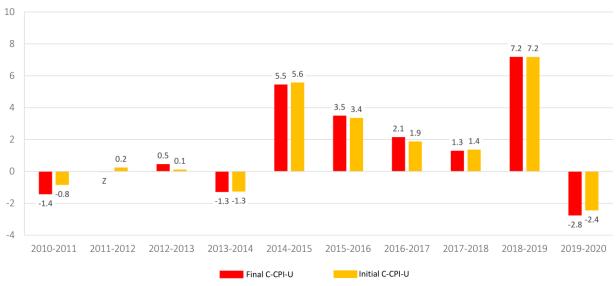


Figure 10. Estimates of Annual Percent Change in Real Median Household Income Growth Using Initial versus Final Values of C-CPI-U: 2010 to 2020

Real income growth (percentage)



Z Rounds to zero.

Note: Households as of March of the following year. The data for 2017 reflect the implementation of an updated processing system. Inflation-adjusted estimates may differ slightly from other published data due to rounding.

Source: U.S. Census Bureau, Current Population Survey, 2011 to 2021 Annual Social and Economic Supplements (CPS ASEC).

5. Conclusion

This paper summarizes Census's proposed adoption of chained priced indices to inflation adjust the CPS ASEC's historical median income and earning series and presents estimates of inflation-adjusted income and earnings for various subgroups using the BLS's C-CPI-U and BEA's PCEPI. It also compares estimates of inflation-adjusted income and earnings growth using the current method and the chained indices and addresses production and other concerns regarding this proposed transition. Based on the strengths of the chained price measures and following the ITWG's suggestions, Census is considering using the the C-CPI-U and the PCEPI for years prior to 2000 to inflation adjust its historical median income and earnings estimates. Pending a series of public presentations and feedback from key stakeholders, Census will decide whether or not to incorporate these measures in future P60 annual income reports released each September.

References

- Boskin, Michael J, E. Dulberger, R. Gordon, Z. Griliches, and D. Jorgenson, "Toward a More Accurate Measure of the Cost of Living," Final Report to the Senate Finance Committee, December 4, 1996, <www.ssa.gov/history/reports/boskinrpt.html>.
- DeNavas-Walt, Carmen, Robert W. Cleveland, and Marc I. Roemer, "Money Income in the United States: 2000," *Current Population Reports, P60-213*, U.S. Census Bureau, Washington, DC, 2001.
- Goolsbee, Austin D. and Peter J. Klenow, "Internet Rising, Prices Falling: Measuring Inflation in a World of E-Commerce," *AEA Papers and Proceedings*, vol. 108, 2018, pages 488—92.
- ILO, IMF, OECD, The World Bank, The United Nations Economic Commission for Europe, Eurostat, United Nations Economic Commission for Europe, and The World Bank, "Consumer price index manual: Theory and practice," International Monetary Fund, Draft, January 2020.
- Interagency Technical Working Group on Consumer Inflation Measures, "Report to Office of Management and Budget: Consumer Inflation Measures," June 2021. https://www.bls.gov/evaluation/technical-recommendations-for-the-consumer-inflation-measure-best-suited-for-conducting-annual-adjustments-to-the-official-poverty-measure.pdf>.
- Jaravel, Xavier, "The unequal gains from product innovations: Evidence from the US retail sector," *The Quarterly Journal of Economics*, Vol. 134, Issue 2, May 2019, pp. 715–783.
- Johnson, David, Stephen B. Reed, and Kenneth J. Stewart, "Price measurement in the United States: a decade after the Boskin Report," *Monthly Labor Review*, Vol. 129, 2006, p. 10.
- Kaplan, G. and S. Schulhofer-Wohl, "Inflation at the household level," *Journal of Monetary Economics*, Vol. 91, 2017, pp. 19–38.
- Kurtzon, Gregory. "How much does formula versus chaining matter for a cost of living index? The CPI-U versus the C-CPI-U." Economic Inquiry. October 2021.
- McCully, Clinton P., Brian C. Moyer, and Kenneth J. Stewart, "Comparing the consumer price index and the personal consumption expenditures price index," *Survey of Current Business*, Vol. 87.11, 2007, pp. 26–33.
- Melser, Daniel and Iqbal A. Syed, "The product life cycle and sample representativity bias in price indexes," *Applied Economics*, Vol. 49.6, 2017, pp. 573–586.
- OECD, The World Bank, The United Nations Economic Commission for Europe, Statistical Office of the European Communities, and Luxembourg, "Consumer price index manual: Theory and practice," International Monetary Fund, 2004.
- Reed, Stephen B. and Darren A. Rippy, Consumer Price Index program, "Consumer Price Index data quality: how accurate is the U.S. CPI?" *Beyond the Numbers: Prices & Spending*, U.S. Bureau of Labor Statistics, Washington, DC, Vol. 1, no. 12, August 2012, <www.bls.gov/opub/btn/volume-1/consumer-price-index-data-quality-how-accurate-is-the-us-cpi.htm>.

Table 1. Household Median Income using Alternative Price Indices: 1967 to 2020

(Income in 2020 dollars. Households as of March of the following year. Information on confidentiality protection, sampling error, nonsampling error, and definitions is available at

						Chained CPI-U (2000-2020)*				
Year	Number (thousands)	Current	Dollars	R-CPI-U-RS/cu	irrent method	PCEPI (196	7-1999)	R-CPI-U-RS/cui (1967-1		
		Estimate	Margin of error ¹ (±)	Estimate	Margin of error ¹ (±)	Estimate	Margin of error ¹ (±)	Estimate	Margin of error ¹ (±)	
2020	129,931	67,521	782	67,521	782	67,521	782	67,521	782	
2019	128,451	68,702	905	69,560	916	69,440	914	69,440	914	
2018	128,579	63,179	691	65,127	712	64,786	708	64,786	708	
2017 ²	127,669	61,136	529	64,557	559	63,956	554	63,956	554	
2017	127,586	61,372	551	64,806	582	64,203	577	64,203	577	
2016	126,224	59,039	718	63,683	774	62,851	764	62,851	764	
2015	125,819	56,516	528	61,748	577	60,727	567	60,727	567	
2014	124,587	53,657	645	58,725	706	57,586	692	57,586	692	
2013 ³	123,931	53,585	1,075	59,640	1,197	58,341	1,171	58,341	1,171	
2013 4	122,952	51,939	454	57,808	505	56,549	494	56,549	494	
2012	122,459	51,017	344	57,623	388	56,225	379	56,225	379	
2011	121,084	50,054	413	57,732	476	56,239	464	56,239	464	
2010 ⁵	119,927	49,276	535	58,627	636	57,057	619	57,057	619	
2009 ⁶	117,538	49,777	351	60,200	424	58,458	412	58,458	412	
2008	117,181	50,303	226	60,624	272	58,798	264	58,798	264	
2007	116,783	50,233	230	62,865	288	60,908	279	60,908	279	
2006	116,011	48,201	340	62,033	438	59,921	423	59,921	423	
2005	114,384	46,326	255	61,553	339	59,262	326	59,262	326	
2003		44,334	322		443	58,356	424		424	
2004	113,343	-	309	60,901		-	424	58,356	424	
2003	112,000	43,318		61,113	436	58,446		58,446		
	111,278	42,409	229	61,190	330	58,413	315	58,413	315	
2001 2000 ⁸	109,297	42,228	212	61,889	311	58,888	296	58,888	296	
	108,209	41,990	217	63,292	327	59,876	309	59,876	309	
1999 ⁹	106,434	40,696	312	63,423	487	59,473	457	60,000	461	
1998	103,874	38,885	378	61,891	602	57,674	561	58,551	570	
1997	102,528	37,005	281	59,697	454	55,323	421	56,475	429	
1996	101,018	35,492	294	58,494	485	53,985	448	55,337	459	
1995 ¹⁰	99,627	34,076	324	57,655	548	52,938	503	54,544	518	
1994 11	98,990	32,264	242	55,905	419	51,179	384	52,888	396	
1993 ¹²	97,107	31,241	240	55,263	425	50,591	389	52,281	402	
1992 ¹³	96,426	30,636	239	55,559	433	50,846	396	52,561	410	
1991	95,669	30,126	238	55,992	443	51,332	406	52,970	419	
1990	94,312	29,943	252	57,677	485	52,726	443	54,564	459	
1989	93,347	28,906	262	58,425	529	53,135	481	55,272	500	
1988	92,830	27,225	219	57,433	462	52,231	420	54,334	437	
1987 ¹⁴	91,124	26,061	202	56,964	442	51,951	403	53,890	418	
1986	89,479	24,897	212	56,291	480	51,161	436	53,253	454	
1985 ¹⁵	88,458	23,618	210	54,334	484	49,588	442	51,402	458	
1984 ¹⁶	86,789	22,415	168	53,337	399	48,704	364	50,459	377	
1983	85,407	20,885	156	51,764	387	47,093	352	48,970	366	
1982	83,918	20,171	150	52,130	387	47,418	352	49,317	366	
1981	83,527	19,074	165	52,272	451	47,330	408	49,451	427	
1980	82,368	17,710	150	53,116	449	47,883	405	50,250	425	
1979 ¹⁷	80,776	16,461	128	54,899	428	49,300	384	51,936	405	
1978	77,330	15,064	100	55,004	366	49,123	327	52,036	346	
1977	76,030	13,572	84	52,954	327	47,336	292	50,096	309	
1976 ¹⁸	74,142	12,686	77	52,621	321	47,125	287	49,781	304	
1975 ¹⁹	72,867	11,800	79	51,762	346	46,238	309	48,969	327	
1975 1974 ^{19, 20}										
1974	71,163	11,197	71	53,154	336	47,532	300	50,285	318	
1973 1972 ²¹	69,859	10,512	66	54,893	344	49,270	309	51,931	325	
	68,251	9,697	61	53,806	338	47,897	301	50,902	320	
1971 ²²	66,676	9,028	58	51,596	329	46,114	294	48,812	31	

1970	64,778	8,734	53	52,103	314	46,507	280	49,291	297
1969	63,401	8,389	51	52,510	319	46,759	284	49,676	302
1968	62,214	7,743	46	50,628	301	45,100	268	47,896	285
1967 ²³	60,813	7,143	43	48,537	291	43,236	259	45,918	275

^{*} Calculated based on the final index values for 2020 and will slightly differ from previously published estimates that used interim values.

Note: Inflation-adjusted estimates may differ slightly from other published data due to rounding. Details of the Consumer Price Index for All Urban Consumers (CPI-U) are available at <www.bls.gov/cpi/questions-and-answers.htm>. The CPI Research Series Using Current Methods (R-CPI-U-RS) is described at <www.bls.gov/cpi/presearch-series/home.htm>. The Chained Consumer Price Index for All Urban Consumers (C-CPI-U) is described at <www.bls.gov/cpi/additional-resources/chained-cpi.htm>. The Personal Consumption Expenditure Prices Index (PCEPI) is described at <www.bea.gov/data/personal-consumption-expenditures-price-index>. The current method for historical income adjustment uses the R-CPI-U-RS from 1978 to the present and the CPI-U-X1 was an experimental series that preceded the R-CPI-U-RS and shows what the inflation rate in the CPI-U might have been, if the current rental equivalence method of measuring the cost of homeownership had been in place prior to 1983.

Source: U.S. Census Bureau, Current Population Survey, 1968 through 2021 Annual Social and Economic Supplements (CPS ASEC).

¹ A margin of error (MOE) is a measure of an estimate's variability. The larger the MOE in relation to the size of the estimate, the less reliable the estimate. This number, when added to and subtracted from the estimate, forms the 90 percent confidence interval. MOEs shown in this table are based on standard errors calculated using replicate weights.

² Implementation of an updated CPS ASEC processing system.

³ The 2014 CPS ASEC included redesigned questions for income and health insurance coverage. All of the approximately 98,000 addresses were eligible to receive the redesigned set of health insurance coverage questions. The redesigned income questions were implemented to a subsample of these 98,000 addresses using a probability split panel design. Approximately 68,000 addresses were eligible to receive a set of income questions similar to those used in the 2013 CPS ASEC and the remaining 30,000 addresses were eligible to receive the redesigned income questions. The source of these 2013 estimates is the portion of the CPS ASEC sample which received the redesigned income questions, approximately 30,000 addresses.

⁴ The source of these 2013 estimates is the portion of the CPS ASEC sample which received the income questions consistent with the 2013 CPS ASEC, approximately 68,000 addresses.

⁵ Implementation of 2010 Census-based population controls. Beginning with 2010, standard errors in this table were calculated using replicate weights. Before 2010, standard errors were calculated using the generalized variance function.

⁶ Median income is calculated using \$2,500 intervals. Beginning with 2009 income data, the Census Bureau expanded the upper income intervals used to calculate medians to \$250,000 or more. Medians falling in the upper open-ended interval are plugged with "\$250,000." Before 2009, the upper open-ended interval was \$100,000 and a plug of "\$100,000" was used.

 $^{^{\}rm 7}$ Data have been revised to reflect a correction to the weights in the 2005 CPS ASEC.

⁸ Implementation of a 28,000 household sample expansion.

⁹ Implementation of 2000 Census-based population controls.

¹⁰ Full implementation of 1990 Census-based sample design and metropolitan definitions, 7,000 household sample reduction, and revised editing of responses on race.

¹¹ Introduction of 1990 Census sample design.

¹² Data collection method changed from paper and pencil to computer-assisted interviewing. In addition, the 1994 CPS ASEC was revised to allow for the coding of different income amounts on selected questionnaire items. Limits either increased or decreased in the following categories: earnings limits increased to \$999,999; social security limits increased to \$49,999; supplemental security income and public assistance limits increased to \$24,999; veterans' benefits limits increased to \$99,999; child support and alimony limits decreased to \$49,999.

¹³ Implementation of 1990 Census population controls.

¹⁴ Implementation of a new CPS ASEC processing system.

¹⁵ Recording of amounts for earnings from longest job increased to \$299,999. Full implementation of 1980 Census-based sample design.

¹⁶ Implementation of Hispanic population weighting controls and introduction of 1980 Census-based sample design.

¹⁷ Implementation of 1980 Census population controls. Questionnaire expanded to allow the recording of up to 27 possible values from a list of 51 possible sources of income.

¹⁸ First year medians were derived using both Pareto and linear interpolation. Before this year, all medians were derived using linear interpolation.

¹⁹ Some of these estimates were derived using Pareto interpolation and may differ from published data, which were derived using linear interpolation.

 $^{^{20}}$ Implementation of a new CPS ASEC processing system. Questionnaire expanded to ask 11 income questions.

²¹ Full implementation of 1970 Census-based sample design.

²² Introduction of 1970 Census sample design and population controls.

²³ Implementation of a new CPS ASEC processing system.

Table 2.

Household Median Income by Race and Hispanic Origin Using Alternative Price Indices: 1967 to 2020

(Income in 2020 dollars. Households as of March of the following year. Information on confidentiality protection, sampling error, nonsampling error, and definitions is available at https://www2.census.gov/programs-surveys/cps/techdocs/cpsmar21.pdf. All results were approved for release by the U.S. Census Bureau, authorization number CBDRB-FY21-282.)

All Races

		•					Chained CPI-	U (2000-2020)	
Race, Hispanic origin,	Number	Curr dolla		R-CPI-U-RS/	current method	PCEPI (1967-19	999)	R-CPI-U-RS/current method (1967-1999)	
and year	(thousands)	Estimate	Margin of error ¹ (±)	Estimate	Margin of error ¹ (±)	Estimate	Margin of error ¹ (±)	Estimate	Margin of error ¹ (±)
ALL RACES									
2020	129,931	67,521	782	67,521	782	67,521	782	67,521	782
2019	128,451	68,702	905	69,560	916		914	69,440	914
2018	128,579	63,179	691	65,127	712		708	64,786	708
2017 ²	127,669	61,136	529	64,557	559	-	554	63,956	554
2017	127,586	61,372	551	64,806	582		577	64,203	577
2016	126,224	59,039	718	63,683	774		764	62,851	764
2015	125,819	56,516	528	61,748	577	60,727	567	60,727	567
2014	124,587	53,657	645	58,725	706	57,586	692	57,586	692
2013 ³	123,931	53,585	1,075	59,640	1,197	58,341	1,171	58,341	1,171
2013 ⁴	122,952	51,939	454	57,808	505	56,549	494	56,549	494
2012	122,459	51,017	344	57,623	388	56,225	379	56,225	379
2011	121,084	50,054	413	57,732	476	56,239	464	56,239	464
2010 ⁵	119,927	49,276	535	58,627	636	57,057	619	57,057	619
2009 ⁶	117,538	49,777	351	60,200	424	58,458	412	58,458	412
2008	117,181	50,303	226	60,624	272	58,798	264	58,798	264
2007	116,783	50,233	230	62,865	288	60,908	279	60,908	279
2006	116,011	48,201	340	62,033	438	59,921	423	59,921	423
2005	114,384	46,326	255	61,553	339	59,262	326	59,262	326
2004 7	113,343	44,334	322	60,901	443	58,356	424	58,356	424
2003	112,000	43,318	309	61,113	436	58,446	417	58,446	417
2002	111,278	42,409	229	61,190	330	58,413	315	58,413	315
2001	109,297	42,228	212	61,889	311	58,888	296	58,888	296
2000 8	108,209	41,990	217	63,292	327	59,876	309	59,876	309
1999 ⁹	106,434	40,696	312	63,423	487	59,473	457	60,000	461
1998	103,874	38,885	378	61,891	602		561	58,551	570
1997	102,528	37,005	281	59,697	454	-	421	56,475	429
1996	101,018	35,492	294	58,494	485	<u> </u>	448	55,337	459
1995 ¹⁰	99,627	34,076	324	57,655	548	-	503	54,544	518
1994 11	98,990	32,264	242	55,905	419	-	384	52,888	396
1993 ¹²	97,107	31,241	240	55,263	425	50,591	389	52,281	402
1992 ¹³	96,426	30,636	239	55,559	433		396	52,561	410
1991	95,669	30,126	238	55,992	443		406	52,970	419
1990	94,312	29,943	252	57,677	485	52,726	443	54,564	459
1989	93,347	28,906	262	58,425	529	-	481	55,272	500
1988	92,830	27,225	219	57,433	462	<u> </u>	420	54,334	437
1987 14	91,124	26,061	202	56,964	442		403	53,890	418
1986	89,479	24,897	212	56,291	480	<u> </u>	436	53,253	454
1985 15	88,458	23,618	210	54,334	484	-	442	51,402	458
1984 ¹⁶	86,789	22,415	168	53,337	399		364	50,459	377
1983	85,407	20,885	156	51,764	387		352	48,970	366
1982	83,918	20,171	150	52,130	387		352		366
1981	83,527	19,074	165	52,272	451		408		427
1980 1979 ¹⁷	82,368	17,710	150	53,116	449		405		425
	80,776	16,461	128	54,899	428		384		405
1978	77,330	15,064	100	55,004	366		327	52,036	346
1977 1976 ¹⁸	76,030	13,572	84	52,954	327		292		309
1975 ¹⁹	74,142	12,686	77	52,621	321		287	49,781	304
1975 ¹⁹ , 20	72,867	11,800	79	51,762	346		309		327
	71,163	11,197	71	53,154	336		300		318
1973	69,859	10,512	66	54,893	344		309	51,931	325
1972 ²¹ 1971 ²²	68,251	9,697	61	53,806	338		301	50,902	320
	66,676	9,028	58	51,596	329		294		311
1970	64,778	8,734	53	52,103	314		280		297
1969	63,401	8,389	51	52,510	319		284		302
1968	62,214	7,743	46	50,628	301		268		285
1967 ²³	60,813	7,143	43	48,537	291	43,236	259	45,918	275

WHITE ALONE 24									
2020	101,582	71,231	736	71,231	736	71,231	736	71,231	736
2019	100,568	72,204	800	73,105	810	72,979	809	72,979	809
2018	100,528	66,943	646	69,007	666	68,646	663	68,646	663
2017 ²	100,113	64,833	842	68,461	889	67,824	881	67,824	881
2017	100,065	65,273	685	68,925	723	68,283	716	68,283	716
2016	99,400	61,858	550	66,724	593	65,852	585	65,852	585
2015	99,313	60,109	627	65,674	685	64,589	674	64,589	674
2014	98,679	56,866	584	62,237	639	61,030	627	61,030	627
2013 ³	98,807	56,745	851	63,157	947	61,782	926	61,782	926
2013 ⁴	97,774	55,257	699	61,501	778	60,162	761	60,162	761
2012	97,705	53,706	631	60,660	713	59,189	696	59,189	696
2011	96,964	52,214	370	60,224	427	58,666	416	58,666	416
2010 5	96,306	51,709	416	61,521	495	59,873	482	59,873	482
2009 ⁶	95,489	51,861	253	62,720	306	60,905	297	60,905	297
2008	95,297	52,312	250	63,046	301	61,148	292	61,148	292
2007	95,112	52,115	253	65,221	317	63,190	307	63,190	307
2006 2005	94,705	50,673	242	65,215	311	62,995	300	62,995	300
2003	93,588 92,880	48,554 46,658	348 301	64,513 64,094	463 414	62,112 61,415	446 397	62,112 61,415	446 397
2003	91,962	45,631	294	64,377	415	61,568	397	61,568	397
2003	91,645	45,086	301	65,052	434	62,099	414	62,099	414
WHITE 25	31,043	43,000	301	05,032	434	02,033	717	02,033	717
2001	90,682	44,517	344	65,244	504	62,080	480	62,080	480
2000 8	90,030	43,916	319	66,195	481	62,623	455	62,623	455
1999 ⁹	88,893	42,325	352	65,962	549	61,854	515	62,402	519
1998	87,212	40,912	337	65,118	537	60,681	500	61,604	508
1997	86,106	38,972	406	62,870	655	58,263	607	59,477	620
1996	85,059	37,161	316	61,244	521	56,523	481	57,939	493
1995 ¹⁰	84,511	35,766	307	60,515	520	55,564	477	57,249	492
1994 ¹¹	83,737	34,028	314	58,961	544	53,977	498	55,779	515
1993 ¹²	82,387	32,960	316	58,303	559	53,374	512	55,157	529
1992 ¹³	81,795	32,209	256	58,411	465	53,457	426	55,259	440
1991	81,675	31,569	252	58,674	468	53,791	429	55,508	443
1990	80,968	31,231	235	60,158	453	54,994	414	56,911	429
1989	80,163	30,406	243	61,457	492	55,893	447	58,140	465
1988	79,734	28,781	280	60,716	590	55,217	537	57,439	558
1987 ¹⁴	78,519	27,458	227	60,017	496	54,736	452	56,778	469
1986	77,284	26,175	209	59,181	472	53,787	429	55,987	447
1985 ¹⁵	76,576	24,908	219	57,302	503	52,297	459	54,210	476
1984 ¹⁶	75,328	23,647	196	56,269	466	51,382	426	53,232	441
1983	74,376	21,902	163	54,285	404	49,387	368	51,355	382
1982	73,182	21,117	158	54,575	408	49,642	371	51,630	386
1981 1980	72,845	20,153 18,684	153 158	55,229 56,037	419 474	50,008 50,516	379 427	52,248 53,013	396 448
1979 ¹⁷	71,872 70,766	17,259	135	57,560	474	51,689	404	54,454	448
1978	68,028	15,660	113	57,380	414	51,069	370	54,434	392
1977	66,934	14,272	99	55,686	385	49,778	344	52,681	364
1976 ¹⁸	65,353	13,289	90	55,123	375	49,365	336	52,148	355
1975 ¹⁹	64,392	12,340	74	54,131	325	48,355	290	51,210	307
1974 ^{19, 20}	62,984	11,710	72	55,590	344	49,710	308	52,590	325
1973	61,965	11,017	69	57,530	361	51,637	324	54,425	342
1972 ²¹	60,618	10,173	64	56,448	356	50,249	317	53,402	337
1971 ²²	59,463	9,443	59	53,968	338	48,233	302	51,056	320
1970	57,575	9,097	57	54,269	343	48,440	306	51,340	324
1969	56,248	8,755	53	54,801	329	48,799	293	51,844	311
1968	55,394	8,062	49	52,714	323	46,959	288	49,869	306
1967 ²³ WHITE ALONE, NOT H	54,188 ISPANIC ²⁴	7,449	44	50,616	302	45,088	269	47,884	286
2020	85,336	74,912	936	74,912	936	74,912	936	74,912	936
2019	84,868	76,058	876	77,007	887	76,874	885	76,874	885
2018	84,727	70,642	652	72,820	672	72,439	668	72,439	668
2017 ²	84,706	68,189	1,109	72,005	1,171	71,335	1,160	71,335	1,160
2017	84,681	68,145	1,049	71,958	1,108	71,288	1,098	71,288	1,098
2016	84,387	65,041	839	70,157	905	69,240	893	69,240	893
2015	84,445	62,950	891	68,778	974	67,641	958	67,641	958
2014	84,228	60,256	606	65,948	663	64,669	650	64,669	650

2013 ³	84,432	60,329	877	67,146	976	65,684	955	65,684	955
2013 4	83,641	58,270	1,006	64,854	1,120	63,442	1,096	63,442	1,096
2012	83,792	57,009	591	64,391	667	62,829	651	62,829	651
2011	83,573	55,412	539	63,912	622	62,259	606	62,259	606
2010 5	83,314	54,460	734	64,794	873	63,059	850	63,059	850
2009 ⁶	83,158	54,461	459	65,865	555	63,959	539	63,959	539
2008	82,884	55,530	370	66,924	446	64,909	433	64,909	433
2007	82,765	54,920	406	68,731	508	66,591	492	66,591	492
2006	82,675	52,423	309	67,467	398	65,170	384	65,170	384
2005 2004 ⁷	82,003	50,784	283	67,476	376	64,965	362	64,965	362
2004	81,628 81,148	48,910 47,777	368 380	67,187 67,404	506 536	64,379 64,463	485 513	64,379 64,463	485 513
2003	81,166	46,900	303	67,404	437	64,598	417	64,598	417
WHITE, NOT HISPANIC		40,500	303	07,003	437	04,556	417	04,338	41/
2001	80,818	46,305	316	67,864	463	64,573	441	64,573	441
2000 8	80,527	45,623	301	68,768	454	65,057	429	65,057	429
1999 ⁹	79,819	44,157	459	68,817	715	64,531	670	65,103	676
1998	78,577	42,439	401	67,548	639	62,946	595	63,903	605
1997	77,936	40,577	349	65,459	563	60,662	522	61,926	533
1996	77,240	38,787	437	63,924	721	58,996	665	60,474	682
1995 ¹⁰	76,932	37,178	319	62,904	540	57,757	496	59,509	511
1994 ¹¹	77,004	35,126	306	60,864	530	55,719	485	57,579	501
1993 ¹²	75,697	34,173	329	60,449	582	55,338	533	57,187	551
1992 ¹³	75,107	33,290	339	60,372	615	55,251	563	57,114	582
1991	75,625	32,323	261	60,076	486	55,076	446	56,834	460
								,	
1990	75,035	31,945	245	61,533	472	56,251	431	58,212	447
1989 1988	74,495 74,067	31,060 29,574	250 286	62,779 62,389	505 604	57,095 56,738	459 549	59,391 59,022	478 571
1987 ¹⁴	73,120	28,213	258	61,667	565	56,241	515	58,339	535
1986	73,120	26,770	227	60,526	513	55,010	466	57,260	485
1985 ¹⁵	71,540	25,468	214	58,590	492	53,473	449	55,428	465
1984 ¹⁶	70,586	24,138	221	57,437	525	52,448	479	54,337	497
1983	69,648	22,465	186	55,680	461	50,656	419	52,675	436
1982	69,214	21,471	178	55,490	459	50,475	418	52,495	434
1981	68,996	20,444	171	56,026	469	50,729	425	53,002	444
1980	68,106	19,015	178	57,030	533	51,411	480	53,952	504
1979 ¹⁷	67,203	17,502	160	58,371	532	52,417	478	55,221	503
1978	64,836	15,955	138	58,257	505	52,029	451	55,113	478
1977	63,721	14,555	135	56,790	526	50,765	470	53,725	498
1976 ¹⁸	62,365	13,560	130	56,247	539	50,372	483	53,212	510
1975 ¹⁹	61,533	12,433	109	54,539	476	48,719	425	51,596	450
1974 ^{19, 20}	60,164	11,810	95	56,064	453	50,134	405	53,038	429
1973	59,236	11,114	86	58,036	447	52,091	401	54,904	423
1972 ²¹	58,005	10,318	81	57,252	447	50,964	398	54,162	423
BLACK ALONE OR IN C		2,2		- , -				- , -	
2020	18,326	46,600	1,255	46,600	1,255	46,600	1,255	46,600	1,255
2019	18,055	46,073	1,149	46,648	1,163	46,568	1,161	46,568	1,161
2018	18,095	41,692	917	42,977	945	42,752	940	42,752	940
2017 ²	17,813	39,988	1,130	42,226	1,193	41,833	1,182	41,833	1,182
2017	17,801	40,594	824	42,865	870	42,466	862	42,466	862
2016	17,505	40,065	959	43,217	1,034	42,652	1,020	42,652	1,020
2015	17,322	37,211	898	40,656	981	39,984	965	39,984	965
2014	17,198	35,653	777	39,021	850	38,264	834	38,264	834
2013 3	16,723	35,764	1,279	39,805	1,424	38,938	1,393	38,938	1,393
2013 4	16,855	34,775	1,152	38,704	1,282	37,861	1,254	37,861	1,254
2012	16,559	33,718	1,313	38,084	1,483	37,160	1,447	37,160	1,447
2011 2010 ⁵	16,165	32,366	909	37,331	1,049	36,365	1,022	36,365	1,022
2010 ⁶	15,909	32,156	773	38,258	920	37,233	895	37,233	895
	15,212	32,750	688	39,608	832	38,462	808	38,462	808
2008 2007	15,056 14,976	34,345 34,091	722 765	41,392 42,664	870 957	40,146 41,336	844 927	40,146 41,336	844 927
2007	14,709	32,132	392	42,664	504	39,945	487	39,945	487
2005	14,709	30,954	485	41,353	645	39,945	621	39,545	621
2004 7	14,151	30,235	456	41,534	626	39,798	600	39,798	600
2003	13,969	29,689	614	41,885	866	40,057	828	40,057	828
	_0,505	,505	~	,003	550	.0,007	520	. 5,007	020

BLACK ALONE 26									
2020	17,358	45,870	1,268	45,870	1,268	45,870	1,268	45,870	1,268
2019	17,054	45,438	1,212	46,005	1,227	45,926	1,225	45,926	1,225
2018	17,167	41,361	906	42,636	934	42,413	929	42,413	929
2017 ²	17,019	39,365	1,395	41,568	1,473	41,181	1,459	41,181	1,459
2017	16,997	40,258	949	42,511	1,002	42,115	993	42,115	993
2016	16,733	39,490	1,186	42,596	1,279	42,039	1,262	42,039	1,262
2015	16,539	36,898	844	40,314	922	39,648	907	39,648	907
2014	16,437	35,398	758	38,742	830	37,991	814	37,991	814
2013 3	16,009	35,324	1,410	39,315	1,569	38,459	1,535	38,459	1,535
2013 4	16,108	34,598	1,198	38,507	1,333	37,668	1,304	37,668	1,304
2012	15,872	33,321	1,300	37,635	1,468	36,722	1,432	36,722	1,432
2011 2010 ⁵	15,583	32,229	838	37,173	966	36,211	941	36,211	941
2010 ⁶	15,265	32,124	821	38,220	977	37,196	951	37,196	951
2009	14,730	32,584	648	39,407	784	38,267	761	38,267	761
2008	14,595 14,551	34,218 33,916	725 781	41,239 42,445	874 978	39,997 41,123	948	39,997 41,123	848 948
2007	14,351	31,969	396	41,143	510	39,742	493	39,742	493
2005	14,002	30,858	495	41,001	658	39,475	634	39,475	634
2004 7	13,809	30,095	515	41,341	707	39,613	677	39,613	677
2003	13,629	29,645	635	41,823	896	39,998	857	39,998	857
2002	13,465	29,026	643	41,880	928	39,979	886	39,979	886
BLACK ²⁵	_5,.05		2.10	,	323	22,575	555	,5,5	230
2001	13,315	29,470	571	43,191	837	41,097	796	41,097	796
2000 8	13,174	29,667	646	44,718	974	42,305	921	42,305	921
1999 ⁹	12,838	27,910	855	43,497	1,333	40,788	1,250	41,150	1,261
1998	12,579	25,351	653	40,350	1,039	37,601	968	38,172	983
1997	12,474	25,050	709	40,411	1,144	37,450	1,060	38,230	1,082
1996	12,109	23,482	760	38,700	1,253	35,717	1,156	36,611	1,185
1995 ¹⁰	11,577	22,393	628	37,888	1,063	34,788	976	35,843	1,006
1994 ¹¹	11,655	21,027	643	36,434	1,114	33,354	1,020	34,468	1,054
1993 ¹²	11,281	19,533	635	34,552	1,123	31,631	1,028	32,687	1,062
1992 ¹³	11,269	18,755	630	34,012	1,143	31,127	1,046	32,176	1,081
1991	11,083	18,807	650	34,955	1,208	32,046	1,107	33,069	1,143
1990	10,671	18,676	701	35,974	1,350	32,886	1,234	34,033	1,277
1989	10,486	18,083	606	36,550	1,224	33,241	1,113	34,578	1,158
1988	10,561	16,407	563	34,612	1,187	31,477	1,079	32,744	1,123
1987 ¹⁴	10,192	15,672	494	34,256	1,079	31,242	984	32,407	1,021
1986	9,922	15,080	487	34,095	1,101	30,988	1,001	32,255	1,042
1985 ¹⁵	9,797	14,819	474	34,092	1,090	31,114	995	32,252	1,031
1984 ¹⁶	9,480	13,471	426	32,055	1,014	29,271	926	30,325	959
1983	9,236	12,429	383	30,806	950	28,026	864	29,144	899
1982	8,916	11,968	316	30,930	816	28,135	742	29,261	772
1981	8,961	11,309	313	30,992	857	28,062	776	29,319	811
1980 1979 ¹⁷	8,847	10,764	334	32,284	1,002	29,103	903	30,542	948
1979	8,586	10,133	304	33,794	1,015	30,347	911	31,970	960
1978	8,066 7,977	9,411 8,422	327 186	34,363 32,860	1,195 725	30,689 29,374	1,067 648	32,509 31,087	1,131 686
1976 ¹⁸	7,776	7,902	161	32,777	669		599		
1975 ¹⁹	7,776	7,408	179	32,496	787	29,353 29,028	703	31,008 30,742	633 745
1974 ^{19, 20}	7,489	6,964	138	32,496	656	29,028	587	31,275	621
1973	7,263	6,485	166	33,864	868	30,395	779	32,036	821
1972 ²¹	6,809	5,938	146	32,949	812	29,330	773	31,171	768
1972 1971 ²²	6,578	5,578	136	31,879	780	28,492	697	30,159	738
1970	6,180	5,537	125	33,031	746	29,483	666	31,248	706
1969	6,053	5,292	128	33,125	803	29,497	715	31,337	760
1968	5,870	4,754	113	31,084	742	27,690	661	29,407	702
1967 ²³	5,728	4,325	118	29,388	805	26,178	717	27,802	762
ASIAN ALONE OR IN C		7,5.2.5				20,210			
2020	7,539	94,718	3,538	94,718	3,538	94,718	3,538	94,718	3,538
2019	7,334	97,150	2,746	98,363	2,780	98,193	2,775	98,193	2,775
2018	7,416	86,815	2,431	89,491	2,506	89,022	2,493	89,022	2,493
2017 ²	7,124	81,007	1,811	85,540	1,912	84,744	1,894	84,744	1,894
2017	7,114	80,961	1,895	85,491	2,001	84,695	1,982	84,695	1,982
2016	6,750	80,822	1,861	87,180	2,007	86,041	1,981	86,041	1,981
2015	6,640	76,761	2,301	83,867	2,514	82,481	2,472	82,481	2,472
2014	6,333	74,829	3,259	81,897	3,567	80,309	3,498	80,309	3,498
2013 ³	6,160	72,472	5,251	80,661	5,844	78,904	5,717	78,904	5,717
2013 4	6,111	67,366	2,997	74,978	3,336	73,345	3,263	73,345	3,263

2012	5,872	68,182	2,857	77.010	3,227	75,142	3,149	75,142	3,149
2012	5,705	64,995	2,857	77,010 74,965	2,967	73,142	2,890	73,026	2,890
2010 ⁵	5,550	63,527	2,410	75,582	2,867	73,558	2,790	73,558	2,790
2009 ⁶	4,940	65,073	2,361	78,699	2,855	76,422	2,772	76,422	2,772
2008	4,805	65,567	2,324	79,020	2,801	76,641	2,717	76,641	2,717
2007	4,715	65,876	2,280	82,442	2,853	79,875	2,764	79,875	2,764
2006	4,664	63,900	2,660	82,237	3,423	79,437	3,306	79,437	3,306
2005	4,500	61,048	1,199	81,114	1,593	78,095	1,534	78,095	1,534
2004 7	4,346	57,449	1,905	78,917	2,617	75,619	2,508	75,619	2,508
2003	4,235	55,262	2,027	77,964	2,859	74,562	2,734	74,562	2,734
2002	4,079	52,285	1,301	75,439	1,877	72,015	1,792	72,015	1,792
ASIAN ALONE 27					ı				
2020	6,987	94,903	3,794	94,903	3,794	94,903	3,794	94,903	3,794
2019	6,853	98,174	3,068	99,400	3,106	99,228	3,101	99,228	3,101
2018 2017 ²	6,981	87,194	2,806	89,882	2,892	89,411	2,877	89,411	2,877
	6,750	81,392	1,778	85,946	1,878	85,146	1,861	85,146	1,861
2017 2016	6,735	81,331	1,962	85,882	2,072	85,082	2,053	85,082	2,053
2016	6,392 6,328	81,431 77,166	1,916 2,792	87,837 84,310	2,067 3,050	86,689 82,917	2,040 3,000	86,689 82,917	2,040 3,000
2013	6,040	74,297	3,466	81,315	3,793	79,738	3,719	79,738	3,719
2013 ³	5,818	72,383	5,530	80,562	6,155	78,808	6,021	78,808	6,021
2013 4	5,759	67,065	2,829	74,643	3,149	73,018	3,080	73,018	3,080
2013	5,560	68,636	3,109	77,523	3,512	75,643	3,427	75,643	3,427
2012	5,374	65,129	2,578	77,323	2,973	73,177	2,896	73,177	2,896
2010 5	5,212	64,259	2,591	76,453	3,083	74,405	3,000	74,405	3,000
2009 ⁶	4,687	65,469	2,085	79,178	2,521	76,887	2,448	76,887	2,448
2008	4,573	65,637	2,280	79,105	2,748	76,723	2,665	76,723	2,665
2007	4,494	66,103	2,278	82,726	2,851	80,150	2,762	80,150	2,762
2006	4,454	64,238	2,754	82,672	3,544	79,857	3,423	79,857	3,423
2005	4,273	61,094	1,171	81,175	1,556	78,154	1,498	78,154	1,498
2004 7	4,123	57,504	2,010	78,993	2,761	75,692	2,646	75,692	2,646
2003	4,040	55,699	1,800	78,581	2,539	75,152	2,428	75,152	2,428
2002	3,917	52,626	1,515	75,931	2,186	72,485	2,087	72,485	2,087
ASIAN AND PACIFIC IS	LANDER 25								
2001	4,071	53,635	2,106	78,607	3,086	74,795	2,936	74,795	2,936
2000 ⁸	3,963	55,757	1,564	84,043	2,358	79,507	2,231	79,507	2,231
1999 ⁹	3,742	50,960	2,954	79,419	4,604	74,473	4,317	75,133	4,356
1998	3,308	46,637	2,136	74,230	3,399	69,173	3,167	70,224	3,216
1997	3,125	45,249	2,069	72,996	3,338	67,647	3,093	69,057	3,158
1996	2,998	43,276	2,551	71,322	4,205	65,824	3,881	67,473	3,978
1995 ¹⁰	2,777	40,614	1,676	68,718	2,836	63,096	2,604	65,010	2,683
1994 ¹¹ 1993 ¹²	2,040	40,482	2,523	70,144	4,372	64,214	4,002	66,359	4,136
1993 1992 ¹³	2,233	38,347	3,102	67,832	5,488	62,097	5,024	64,171	5,192
1992	2,262	37,801	1,795	68,553	3,255	62,738	2,979	64,853	3,079
1990	2,094 1,958	36,449 38,450	1,935 1,874	67,744 74,063	3,596 3,609	62,106 67,706	3,297 3,299	64,088 70,066	3,402
1989	1,988	36,102	1,605	72,970		66,363	2,951	69,032	3,414 3,070
1988	1,913	32,267	2,181	68,070		61,905	4,185	64,396	4,354
1987 ¹⁴	N	32,226	1,971	70,439		64,241	3,929	66,638	4,076
HISPANIC (ANY RACE)		32,220	2,372	70,103	.,550	0 1,2 12	3,323	00,000	.,070
2020	18,349	55,321	1,183	55,321	1,183	55,321	1,183	55,321	1,183
2019	17,667	56,114	1,172	56,814		56,716	1,185	56,716	1,185
2018	17,758	51,450	735	53,036		52,758	754	52,758	754
2017 ²	17,336	50,167	759	52,974	801	52,481	794	52,481	794
2017	17,318	50,486	721	53,311	761	52,815	754	52,815	754
2016	16,915	47,675	1,112	51,425	1,199	50,753	1,183	50,753	1,183
2015	16,667	45,148	1,011	49,328		48,513	1,087	48,513	1,087
2014	16,239	42,491	849	46,505	929	45,603	911	45,603	911
2013 ³	16,088	39,687	1,954	44,171	2,175	43,209	2,128	43,209	2,128
2013 ⁴	15,811	40,963	908	45,592	1,011	44,599	989	44,599	989
2012	15,589	39,005	878	44,055	992	42,986	968	42,986	968
2011	14,939	38,624	900	44,549		43,397	1,011	43,397	1,011
2010 5	14,435	37,631	957	44,772	1,139	43,573	1,108	43,573	1,108
2009 ⁶	13,298	38,039	826	46,004		44,673	970	44,673	970
2008	13,425	37,913	800	45,692	964	44,316	935	44,316	935
2007	13,339	38,679	856	48,406		46,899	1,038	46,899	1,038
2006	12,973	37,781	831	48,623	1,069	46,968	1,033	46,968	1,033
2005	12,519	35,967	587	47,789		46,010	751	46,010	751
2004 7	12,178	34,271	790	47,078	1,085	45,110	1,040	45,110	1,040

2003	11,693	32,997	755	46,552	1,065	44,521	1,019	44,521	1,019
2002	11,339	33,103	793	47,763	1,144	45,595	1,092	45,595	1,092
2001	10,499	33,565	701	49,193	1,027	46,808	977	46,808	977
2000 ⁸	10,034	33,168	786	49,995	1,185	47,297	1,121	47,297	1,121
1999 ⁹	9,579	30,746	735	47,916	1,146	44,932	1,075	45,330	1,084
1998	9,060	28,330	898	45,091	1,430	42,019	1,333	42,658	1,353
1997	8,590	26,628	782	42,956	1,261	39,808	1,169	40,638	1,193
1996	8,225	24,906	794	41,047	1,309	37,883	1,208	38,832	1,238
1995 ¹⁰	7,939	22,860	819	38,678	1,386	35,513	1,273	36,591	1,311
1994 ¹¹	7,735	23,421	716	40,582	1,240	37,151	1,135	38,392	1,173
1993 ¹²	7,362	22,886	757	40,483	1,339	37,060	1,226	38,298	1,267
1992 ¹³	7,153	22,597	768	40,980	1,393	37,504	1,275	38,768	1,318
1991	6,379	22,691	776	42,174	1,443	38,664	1,323	39,898	1,365
1990	6,220	22,330	753	43,013	1,451	39,321	1,326	40,692	1,373
1989	5,933	21,921	699	44,307	1,413	40,295	1,285	41,916	1,337
1988	5,910	20,359	849	42,949	1,791	39,059	1,629	40,631	1,694
1987 ¹⁴	5,642	19,336	691	42,264	1,510	38,545	1,377	39,983	1,429
1986	5,418	18,352	786	41,493	1,778	37,711	1,616	39,254	1,682
1985 ¹⁵	5,213	17,465	671	40,179	1,544	36,670	1,409	38,011	1,461
1984 ¹⁶	4,883	16,992	701	40,433	1,668	36,921	1,523	38,251	1,578
1983	4,326	15,906	663	39,424	1,643	35,867	1,495	37,296	1,554
1982	4,085	15,178	660	39,226	1,705	35,681	1,551	37,109	1,613
1981	3,980	15,300	689	41,929	1,889	37,965	1,710	39,666	1,787
1980	3,906	13,651	608	40,942	1,825	36,908	1,645	38,733	1,727
1979 ¹⁷	3,684	13,042	619	43,496	2,063	39,060	1,853	41,149	1,952
1978	3,291	11,803	471	43,097	1,718	38,489	1,534	40,771	1,625
1977	3,304	10,647	308	41,542	1,200	37,135	1,073	39,300	1,135
1976 ¹⁸	3,081	9,569	336	39,692	1,392	35,546	1,247	37,550	1,317
1975 ¹⁹	2,948	8,865	322	38,888	1,414	34,738	1,263	36,789	1,338
1974 ^{19, 20}	2,897	8,906	321	42,279	1,523	37,807	1,362	39,997	1,441
1973	2,722	8,144	304	42,527	1,589	38,171	1,426	40,232	1,503
1972 ²¹	2,655	7,677	247	42,598	1,369	37,920	1,219	40,299	1,295

N Not available

¹ A margin of error (MOE) is a measure of an estimate's variability. The larger the MOE in relation to the size of the estimate, the less reliable the estimate. This number, when added to and subtracted from the estimate, forms the 90 percent confidence interval. MOEs shown in this table are based on standard errors calculated using replicate weights.

² Estimates reflect the implementation of an updated processing system and should be used to make comparisons to 2018 and subsequent years.

³ The 2014 CPS ASEC included redesigned questions for income and health insurance coverage. All of the approximately 98,000 addresses were eligible to receive the redesigned set of health insurance coverage questions. The redesigned income questions were implemented to a subsample of these 98.000 addresses using a probability split panel design. Approximately 68.000 addresses were eligible to receive a set of income questions similar to those used in the 2013 CPS ASEC and the remaining 30,000 addresses were eligible to receive the redesigned income questions. The source of these 2013 estimates is the portion of the CPS ASEC sample which received the redesigned income questions, approximately 30,000 addresses.

⁴ The source of these 2013 estimates is the portion of the CPS ASEC sample which received the income questions consistent with the 2013 CPS ASEC, approximately 68,000 addresses.

⁵ Implementation of 2010 Census-based population controls. Beginning with 2010, standard errors in this table were calculated using replicate weights. Before 2010, standard errors were calculated using the

⁶ Median income is calculated using \$2,500 intervals. Beginning with 2009 income data, the Census Bureau expanded the upper income intervals used to calculate medians to \$250,000 or more. Medians falling in the upper open-ended interval are plugged with "\$250,000." Before 2009, the upper open-ended interval was \$100,000 and a plug of "\$100,000" was used.

⁷ Data have been revised to reflect a correction to the weights in the 2005 CPS ASEC.

⁸ Implementation of a 28,000 household sample expansion.

⁹ Implementation of 2000 Census-based population controls.

¹⁰ Full implementation of 1990 Census-based sample design and metropolitan definitions, 7,000 household sample reduction, and revised editing of responses on race.

¹¹ Introduction of 1990 Census sample design.

¹² Data collection method changed from paper and pencil to computer-assisted interviewing. In addition, the 1994 CPS ASEC was revised to allow for the coding of different income amounts on selected questionnaire items. Limits either increased or decreased in the following categories: earnings limits increased to \$999,999; social security limits increased to \$49,999; supplemental security income and public assistance limits increased to \$24,999; veterans' benefits limits increased to \$99,999; child support and alimony limits decreased to \$49,999. ¹³ Implementation of 1990 Census population controls.

¹⁴ Implementation of a new CPS ASEC processing system.

¹⁵ Recording of amounts for earnings from longest job increased to \$299,999. Full implementation of 1980 Census-based sample design.

 $^{^{16}}$ Implementation of Hispanic population weighting controls and introduction of 1980 Census-based sample design.

¹⁷ Implementation of 1980 Census population controls. Questionnaire expanded to allow the recording of up to 27 possible values from a list of 51 possible sources of income.

¹⁸ First year medians were derived using both Pareto and linear interpolation. Before this year, all medians were derived using linear interpolation.

¹⁹ Some of these estimates were derived using Pareto interpolation and may differ from published data, which were derived using linear interpolation.

²⁰ Implementation of a new CPS ASEC processing system. Questionnaire expanded to ask 11 income questions.

²¹ Full implementation of 1970 Census-based sample design.

²² Introduction of 1970 Census sample design and population controls.

²³ Implementation of a new CPS ASEC processing system.

⁴⁸ Beginning with the 2003 CPS ASEC, respondents were allowed to choose one or more races. White alone refers to people who reported White and did not report any other race category. The use of this single-race population does not imply that it is the preferred method of presenting or analyzing the data. The Census Bureau uses a variety of approaches.

²⁵ For the year 2001 and earlier, the CPS ASEC allowed respondents to report only one race group.

²⁶ Black alone refers to people who reported Black and did not report any other race category

Note: Inflation-adjusted estimates may differ slightly from other published data due to rounding. Details of the Consumer Price Index for All Urban Consumers (CPI-U) are available at <www.bls.gov/cpi/questions-and-answers.htm>. The CPI Research Series Using Current Methods (R-CPI-U-RS) is described at <www.bls.gov/cpi/research-series/home.htm>. The Chained Consumer Price Index for All Urban Consumers (C-CPI-U) is described at <www.bls.gov/cpi/additional-resources/chained-cpi.htm>. The Personal Consumption Expenditure Prices Index (PCEPI) is described at <www.bea.gov/data/personal-consumption-expenditure-price-index>. The current method for historical income adjustment uses the R-CPI-U-RS from 1978 to the present and the CPI-U-X1 from 1967 to 1977. The CPI-U-X1 was an experimental series that preceded the R-CPI-U-RS and shows what the inflation rate in the CPI-U might have been, if the current rental equivalence method of measuring the cost of homeownership had been in place prior to 1983.

Source: U.S. Census Bureau, Current Population Survey, 1968 to 2021 Annual Social and Economic Supplements (CPS ASEC).

 $^{^{27}}$ Asian alone refers to people who reported Asian and did not report any other race category.

²⁸ Because Hispanics may be any race, data in this report for Hispanics overlap with data for racial groups. Being Hispanic was reported by 16.0 percent of White householders who reported only one race, 5.3 percent of Black householders who reported only one race, and 2.7 percent of Asian householders who reported only one race. Data users should exercise caution when interpreting aggregate results for the Hispanic population and for race groups because these populations consist of many distinct groups that differ in socioeconomic characteristics, culture, and recency of immigration. Data were first collected for Hispanics in 1972.

Table 3. **Historical Median Income of Householders Age 65 and Over Using Alternative Price Indices: 1967 to 2020**(Income in 2020 dollars. Householders 15 years old and over beginning with March 1980, and householders 14 years old and over as of March of the following year for previous years. Information on confidentiality protection, sampling error, nonsampling error, and definitions is available at

Attps://www2.census.gov/programs-surveys/cps/techdocs/cpsmar21.pdf>. All results were approved for release by the U.S. Census Bureau, authorization number CBDRB-FY21-282.)

65 Years and Older

				Chained CPI-U (2000-2020)			
Year	Number (thousands)	Current dollars	R-CPI-U-RS/current method	PCEPI (1967-1999)	R-CPI-U-RS/current method (1967-1999)		
2020	35,688	46,360	46,360	46,360	46,360		
2019	34,927	47,357	47,949	47,865	47,865		
2018	34,156	43,696	45,043	44,807	44,807		
2017 ¹	32,966	41,297	43,608	43,202	43,202		
2017	32,973	41,125	43,426	43,022	43,022		
2016	31,799	39,823	42,956	42,394	42,394		
2015	30,998	38,515	42,081	41,385	41,385		
2014	29,946	36,895	40,380	39,597	39,597		
2013 ²	29,069	37,297	41,511	40,607	40,607		
2013 ³	28,729	35,611	39,635	38,772	38,772		
2012	27,924	33,848	38,231	37,303	37,303		
2011	26,843	33,118	38,198	37,210	37,210		
2010 4	25,737	31,461	37,431	36,429	36,429		
2009 5	25,270	31,354	37,919	36,822	36,822		
2008	24,834	29,744	35,847	34,768	34,768		
2007	24,113	28,305	35,423	34,320	34,320		
2006	23,729	27,798	35,775	34,557	34,557		
2005	23,459	26,036	34,594	33,306	33,306		
2004 ⁶	23,151	24,516	33,677	32,270	32,270		
2003	23,048	23,787	33,559	32,095	32,095		
2002	22,659	23,152	33,405	31,889	31,889		
2001	22,476	23,118	33,882	32,239	32,239		
2000 7	22,469	23,083	34,793	32,916	32,916		
1999 ⁸	22,478	22,797	35,528	33,316	33,611		
1998	21,589	21,729	34,585	32,229	32,719		
1997	21,497	20,761	33,492	31,038	31,684		
1996	21,408	19,448	32,052	29,581	30,322		
1995 ⁹	21,486	19,096	32,310	29,666	30,566		
1994 ¹⁰	21,365	18,095	31,354	28,703	29,662		
1993 ¹¹	20,806	17,751	31,400	28,745	29,705		
1992 ¹²	20,682	17,135	31,075	28,439	29,398		
1991	20,921	16,975	31,550	28,924	29,847		
1990	20,527	16,855	32,467	29,680	30,714		
1989	20,156	15,771	31,876	28,990	30,156		
1988	19,716	14,923	31,481	28,630	29,782		
1987 ¹³	19,412	14,443	31,569	28,791	29,866		
1986	18,998	13,845	31,303	28,450	29,614		
1985 ¹⁴	18,596	13,254	30,491	27,828	28,846		
1984 ¹⁵	18,155	12,799	30,456	27,810	28,812		
1983	17,901	11,718	29,044	26,423	27,476		
1982	17,671	11,041	28,534	25,955	26,995		
1981	17,312	9,903	27,139	24,573	25,674		
1980	16,912	8,781	26,336	23,741	24,915		
1979 ¹⁶	16,544	7,879	26,277	23,597	24,859		
1978	15,795	7,081	25,855	23,091	24,460		

1977	15,225	6,347	24,764	22,137	23,428
1976 ¹⁷	14,816	5,962	24,730	22,147	23,396
1975 ¹⁸	14,802	5,585	24,499	21,885	23,177
1974 ^{18, 19}	14,263	5,292	25,122	22,465	23,766
1973	13,879	4,583	23,932	21,481	22,641
1972 ²⁰	13,473	4,169	23,133	20,592	21,884
1971 ²¹	13,255	3,813	21,792	19,476	20,616
1970	12,622	3,498	20,868	18,626	19,741
1969	12,252	3,329	20,838	18,555	19,713
1968	12,014	3,180	20,793	18,523	19,671
1967 ²²	11,792	2,760	18,754	16,706	17,742

¹ Estimates reflect the implementation of an updated processing system and should be used to make comparisons to 2018 and subsequent years.

Note: Inflation-adjusted estimates may differ slightly from other published data due to rounding. Details of the Consumer Price Index for All Urban Consumers (CPI-U) are available at <www.bls.gov/cpi/questions-and-answers.htm>. The CPI Research Series Using Current Methods (R-CPI-U-RS) is described at <www.bls.gov/cpi/research-series/home.htm>. The Chained Consumer Price Index for All Urban Consumers (C-CPI-U) is described at <www.bls.gov/cpi/additional-resources/chained-cpi.htm>. The Personal Consumption Expenditure Prices Index (PCEPI) is described at <www.bea.gov/data/personal-consumption-expenditures-price-index>. The current method for historical income adjustment uses the R-CPI-U-RS from 1978 to the present and the CPI-U-X1 from 1967 to 1977. The CPI-U-X1 was an experimental series that preceded the R-CPI-U-RS and shows what the inflation rate in the CPI-U might have been, if the current rental equivalence method of measuring the cost of homeownership had been in place prior to 1983.

Source: U.S. Census Bureau, Current Population Survey, 1968 through 2021 Annual Social and Economic Supplements (CPS ASEC).

² The 2014 CPS ASEC included redesigned questions for income and health insurance coverage. All of the approximately 98,000 addresses were eligible to receive the redesigned set of health insurance coverage questions. The redesigned income questions were implemented to a subsample of these 98,000 addresses using a probability split panel design. Approximately 68,000 addresses were eligible to receive a set of income questions similar to those used in the 2013 CPS ASEC and the remaining 30,000 addresses were eligible to receive the redesigned income questions. The source of these 2013 estimates is the portion of the CPS ASEC sample which received the redesigned income questions, approximately 30,000 addresses.

³ The source of these 2013 estimates is the portion of the CPS ASEC sample which received the income questions consistent with the 2013 CPS ASEC, approximately 68,000 addresses.

⁴ Implementation of 2010 Census-based population controls.

⁵ Median earnings are calculated using \$2,500 intervals. Beginning with 2009 income data, the Census Bureau expanded the upper income intervals used to calculate medians to \$250,000 or more. Medians falling in the upper open-ended interval are plugged with "\$250,000." Before 2009, the upper open-ended interval was \$100,000 and a plug of "\$100,000" was used.

⁶ Data have been revised to reflect a correction to the weights in the 2005 CPS ASEC.

⁷ Implementation of a 28,000 household sample expansion.

⁸ Implementation of 2000 Census-based population controls.

⁹ Full implementation of 1990 Census-based sample design and metropolitan definitions, 7,000 household sample reduction, and revised editing of responses on

¹⁰ Introduction of 1990 Census sample design.

¹¹ Data collection method changed from paper and pencil to computer-assisted interviewing. In addition, the 1994 CPS ASEC was revised to allow for the coding of different income amounts on selected questionnaire items. Limits either increased or decreased in the following categories: earnings limits increased to \$999,999; social security limits increased to \$49,999; supplemental security income and public assistance limits increased to \$24,999; veterans' benefits limits increased to \$99,999; child support and alimony limits decreased to \$49,999.

¹² Implementation of 1990 Census population controls

¹³ Implementation of a new CPS ASEC processing system.

¹⁴ Recording of amounts for earnings from longest job increased to \$299,999. Full implementation of 1980 Census-based sample design.

¹⁵ Implementation of Hispanic population weighting controls and introduction of 1980 Census-based sample design.

¹⁶ Implementation of 1980 Census population controls. Questionnaire expanded to allow the recording of up to 27 possible values from a list of 51 possible sources of income.

¹⁷ First year medians were derived using both Pareto and linear interpolation. Before this year, all medians were derived using linear interpolation.

¹⁸ Some of these estimates were derived using Pareto interpolation and may differ from published data, which were derived using linear interpolation.

¹⁹ Implementation of a new CPS ASEC processing system. Questionnaire expanded to ask 11 income questions.

²⁰ Full implementation of 1970 Census-based sample design.

²¹ Introduction of 1970 Census sample design and population controls.

²² Implementation of a new CPS ASEC processing system.

Table 4.

Median Earnings of Total and Full-Time, Year-Round Workers (Both Sexes Combined) Using Alternative Price Indices: 1974 to 2020

(Earnings in 2020 dollars. People 15 years and older as of March of the following year beginning in 1980, and people 14 years old and older as of March of the following year for previous years. Before 1989 earnings are for civilian workers only. Information on confidentiality protection, sampling error, nonsampling error, and definitions is available at https://www2.census.gov/programs-surveys/cps/techdocs/cpsmar21.pdf. All results were approved for release by the U.S. Census Bureau, authorization number CBDRB-

FY21-282.)

FY21-282.)			Total Workers			Full-time, year-round Workers					
	Number with			Chained (CPI-U (2000-2020)	Number with			Chained CP	I-U (2000-2020)	
Year	earnings (thousands)	Current dollars	R-CPI-U-RS/current method	PCEPI (1967-1999)	R-CPI-U-RS/current method (1967-1999)	earnings (thousands)	Current dollars	R-CPI-U-RS/current method	PCEPI (1967-1999)	R-CPI-U-RS/current method (1967-1999)	
2020	166,847	41,535	41,535	41,535	41,535	105,493	56,287	56,287	56,287	56,287	
2019	169,802	41,537	42,056	41,983	41,983	119,158	52,000	52,650	52,558	52,558	
2018	167,555	40,247	41,488	41,270	41,270	118,000	50,653	52,215	51,941	51,941	
2017 ¹	166,311	37,989	40,115	39,741	39,741	115,727	49,755	52,539	52,050	52,050	
2017	166,296	37,479	39,576	39,208	39,208	115,672	48,500	51,214	50,737	50,737	
2016	164,628	36,586	39,464	38,948	38,948	113,281	47,180	50,891	50,226	50,226	
2015	163,409	35,706	39,012	38,367	38,367	111,099	46,361	50,653	49,816	49,816	
2014	160,066	34,084	37,304	36,580	36,580	108,682	45,006	49,257	48,302	48,302	
2013 ²	158,676	32,463	36,131	35,344	35,344	105,869	43,991	48,962	47,895	47,895	
2013 ³	158,101	32,475	36,144	35,357	35,357	105,836	43,949	48,915	47,850	47,850	
2012	157,191	31,921	36,054	35,180	35,180	103,051	42,799	48,341	47,168	47,168	
2011	154,460	31,683	36,543	35,598	35,598	101,676	42,086	48,542	47,286	47,286	
2010 4	153,572	31,321	37,265	36,266	36,266	99,461	41,923	49,878	48,542	48,542	
2009 ⁵	154,906	30,899	37,369	36,288	36,288	99,270	41,480	50,166	48,714	48,714	
2008	158,577	30,986	37,344	36,219	36,219	104,017	41,030	49,449	47,960	47,960	
2007	158,777	31,091	38,910	37,698	37,698	108,597	40,320	50,460	48,888	48,888	
2006	157,611	30,353	39,063	37,733	37,733	107,717	38,489	49,534	47,848	47,848	
2005	155,410	28,567	37,957	36,544	36,544	104,851	36,911	49,043	47,218	47,218	
2004 ⁶	153,378	27,280	37,474	35,908	35,908	102,468	36,215	49,748	47,669	47,669	
2003	151,880	26,911	37,966	36,310	36,310	100,680	35,795	50,500	48,296	48,296	
2002	151,911	26,391	38,078	36,350	36,350	100,637	35,038	50,554	48,260	48,260	
2001	151,441	26,002	38,108	36,260	36,260	100,351	33,636	49,297	46,906	46,906	
2000	152,151	25,278	38,102	36,046	36,046	101,321	32,255	48,618	45,995	45,995	
1999 ⁷	150,375	23,492	36,611	34,331	34,636	99,170	31,489	49,074	46,018	46,426	
1998	146,141	22,656	36,060	33,604	34,114	95,736	30,771	48,977	45,640	46,334	
1997	144,429	21,525	34,724	32,180	32,850	92,591	30,105	48,565	45,007	45,945	
1996	142,782	20,716	34,142	31,509	32,299	90,217	28,300	46,641	43,045	44,124	
1995 ⁸	140,176	19,952	33,758	30,996	31,936	88,149	27,147	45,932	42,174	43,453	
1994 ⁹	138,970	18,757	32,501	29,753	30,747	85,734	26,675	46,220	42,313	43,726	
1993 ¹⁰	136,858	18,020	31,876	29,181	30,156	83,342	26,125	46,213	42,306	43,719	
1992 ¹¹	135,528	17,456	31,657	28,971	29,948	81,793	25,842	46,865	42,890	44,336	
1991	133,835	17,146	31,868	29,215	30,148	80,324	25,169	46,779	42,886	44,255	
1990	134,080	16,737	32,239	29,472	30,499	80,854	24,078	46,380	42,399	43,877	
1989	133,383	16,333	33,012	30,023	31,231	81,017	23,333	47,161	42,891	44,616	
1988	131,125	15,438	32,568	29,618	30,810	79,522	22,234	46,904	42,656	44,373	
1987 ¹²	128,904	14,612	31,939	29,128	30,215	76,926	21,522	47,042	42,903	44,504	
1986	126,414	13,666	30,898	28,082	29,231	74,332	20,948	47,363	43,046	44,807	

1985 ¹³	124,105	12,884	29,640	27,051	28,041	72,326	20,205	46,482	42,423	43,974
	-	-	· ·	,						· -
1984 ¹⁴	121,680	12,142	28,892	26,383	27,333	70,274	19,264	45,839	41,858	43,365
1983	118,246	11,601	28,754	26,159	27,202	66,694	18,059	44,760	40,721	42,344
1982	116,550	11,050	28,558	25,977	27,017	63,808	17,264	44,617	40,585	42,209
1981	117,173	10,609	29,074	26,325	27,505	65,102	16,435	45,040	40,782	42,609
1980	116,177	9,995	29,977	27,024	28,359	64,740	15,327	45,969	41,440	43,488
1979 ¹⁵	115,545	9,034	30,129	27,056	28,503	64,519	13,970	46,591	41,839	44,077
1978	111,301	8,280	30,233	27,001	28,602	61,951	12,924	47,190	42,145	44,643
1977	107,898	7,563	29,509	26,378	27,916	58,502	12,129	47,324	42,304	44,770
1976 ¹⁶	105,015	7,020	29,119	26,077	27,547	56,257	11,351	47,084	42,166	44,543
1975 ¹⁷	102,194	6,616	29,022	25,925	27,456	54,719	10,750	47,157	42,124	44,612
1974 ^{17, 18}	102,719	6,182	29,347	26,243	27,763	54,861	10,048	47,700	42,655	45,126

¹ Estimates reflect the implementation of an updated processing system and should be used to make comparisons to 2018 and subsequent years.

Note: Inflation-adjusted estimates may differ slightly from other published data due to rounding. Details of the Consumer Price Index for All Urban Consumers (CPI-U) are available at <www.bls.gov/cpi/questions-and-answers.htm>. The CPI Research Series Using Current Methods (R-CPI-U-RS) is described at <www.bls.gov/cpi/research-series/home.htm>. The Chained Consumer Price Index for All Urban Consumers (C-CPI-U) is described at <www.bls.gov/cpi/additional-resources/chained-cpi.htm>. The Personal Consumption Expenditure Prices Index (PCEPI) is described at <www.bea.gov/data/personal-consumption-expenditures-price-index>. The current method for historical income adjustment uses the R-CPI-U-RS from 1978 to the present and the CPI-U-X1 from 1967 to 1977. The CPI-U-X1 was an experimental series that preceded the R-CPI-U-RS and shows what the inflation rate in the CPI-U might have been, if the current rental equivalence method of measuring the cost of homeownership had been in place prior to 1983.

Source: U.S. Census Bureau, Current Population Survey, 1975 to 2021 Annual Social and Economic Supplements (CPS ASEC).

² The 2014 CPS ASEC included redesigned questions for income and health insurance coverage. All of the approximately 98,000 addresses were eligible to receive the redesigned set of health insurance coverage questions. The redesigned income questions were implemented to a subsample of these 98,000 addresses using a probability split panel design. Approximately 68,000 addresses were eligible to receive a set of income questions similar to those used in the 2013 CPS ASEC and the remaining 30,000 addresses were eligible to receive the redesigned income questions. The source of these 2013 estimates is the portion of the CPS ASEC sample which received the redesigned income questions, approximately 30,000 addresses.

³ The source of these 2013 estimates is the portion of the CPS ASEC sample which received the income questions consistent with the 2013 CPS ASEC, approximately 68,000 addresses.

⁴ Implementation of 2010 Census-based population controls.

⁵ Median earnings are calculated using \$2,500 intervals. Beginning with 2009 income data, the Census Bureau expanded the upper income intervals used to calculate medians to \$250,000 or more. Medians falling in the upper open-ended interval are plugged with "\$250,000." Before 2009, the upper open-ended interval was \$100,000 and a plug of "\$100,000" was used.

⁶ Data have been revised to reflect a correction to the weights in the 2005 CPS ASEC.

⁷ Implementation of a 28,000 household sample expansion.

⁸ Implementation of 2000 Census-based population controls.

⁹ Full implementation of 1990 Census-based sample design and metropolitan definitions, 7,000 household sample reduction, and revised editing of responses on race.

¹⁰ Introduction of 1990 Census sample design.

¹¹ Data collection method changed from paper and pencil to computer-assisted interviewing. In addition, the 1994 CPS ASEC was revised to allow for the coding of different income amounts on selected questionnaire items. Limits either increased or decreased in the following categories: earnings limits increased to \$999,999; social security limits increased to \$49,999; supplemental security income and public assistance limits increased to \$24,999; veterans' benefits limits increased to \$99,999; child support and alimony limits decreased to \$49,999.

 $^{^{\}mbox{\scriptsize 12}}$ Implementation of 1990 Census population controls.

¹³ Implementation of a new CPS ASEC processing system.

¹⁴ Recording of amounts for earnings from longest job increased to \$299,999. Full implementation of 1980 Census-based sample design.

¹⁵ Implementation of Hispanic population weighting controls and introduction of 1980 Census-based sample design.

¹⁶ Implementation of 1980 Census population controls. Questionnaire expanded to allow the recording of up to 27 possible values from a list of 51 possible sources of income.

¹⁷ First year medians were derived using both Pareto and linear interpolation. Before this year, all medians were derived using linear interpolation.

¹⁸ Some of these estimates were derived using Pareto interpolation and may differ from published data, which were derived using linear interpolation.

Table 5.

Median Earnings of Full-Time, Year-Round Workers by Sex Using Alternative Price Indices: 1974 to 2020

(Earnings in 2020 dollars. People 15 years and older as of March of the following year beginning in 1980, and people 14 years old and older as of March of the following years. Before 1989 earnings are for civilian workers only. Information on confidentiality protection,

samping cire	or, nonsampling err	or, and demin	ions is available	at <nttps: th="" w<=""><th>wwz.census.gov/</th><th>programs-surv</th><th>eys/cps/techdoc</th><th></th><th>all-time, year-ro</th><th>re approved for re</th><th>elease by the C</th><th>J.S. Census Bure</th><th>au, authorizat</th><th>ion number CBI</th><th>ORB-FY21-282.</th><th>)</th><th></th><th></th></nttps:>	wwz.census.gov/	programs-surv	eys/cps/techdoc		all-time, year-ro	re approved for re	elease by the C	J.S. Census Bure	au, authorizat	ion number CBI	ORB-FY21-282.)		
		Junu Workers	Female															
						Chained CPI-U (2000-2020)										Chained CPI	-U (2000-202	0)
Year	Number of workers with earnings (thousands)	Current	t dollars	R-CPI-U-RS/current method		PCEPI (1967-1999)		R-CPI-U-RS/current method (1967-1999)		Number of workers with	Current dollars		R-CPI-U-RS/current method		PCEPI (1967-1999)		R-CPI-U-RS/current method (1967-1999)	
		Estimate	Margin of error ¹ (±)	Estimate	Margin of error ¹ (±)	Estimate	Margin of error ¹ (±)	Estimate	Margin of error ¹ (±)	earnings (thousands)	Estimate	Margin of error ¹ (±)	Estimate	Margin of error ¹ (±)	Estimate	Margin of error ¹ (±)	Estimate	Margin of error ¹ (±)
2020	59,634	61,417	284	61,417	284	61,417	284	61,417	284	45,859	50,982	277	50,982	277	50,982	277	50,982	277
2019	67,123	57,456	865	58,173	876	58,073	874	58,073	874	52,035	47,299	367	47,889	372	47,806	371	47,806	371
2018	67,205	55,291	474	56,995	489	56,697	486	56,697	486	50,795	45,098	487	46,488	502	46,245	499	46,245	499
2017 ²	66,500	52,186	223	55,106	236	54,593	234	54,593	234	49,227	42,619	872	45,004	921	44,585	912	44,585	912
2017	66,379	52,146	225	55,064	238	54,551	236	54,551	236	49,293	41,977	207	44,326	219	43,913	217	43,913	217
2016	64,953	51,640	210	55,702	227	54,974	224	54,974	224	48,328	41,554	245	44,823	264	44,237	261	44,237	261
2015	63,887	51,212	223	55,953	244	55,028	240	55,028	240	47,211	40,742	240	44,514	262			43,778	258
2014	62,455	50,383	217	55,142	238	54,073	233	54,073	233	46,226	39,621	717	43,364	785	42,523	770	42,523	770
2013 ³	61,240	50,015	934	55,666	1,040	54,454	1,017	54,454	1,017	44,629	38,793	1,145	43,176	1,274	42,236	1,246	42,236	1,246
2013 4	60,769	50,033	404	55,686	450	54,473	440	54,473	440	45,068	39,157	597	43,581	665	42,632	651	42,632	651
2012	59,009	49,398	768	55,794	868	54,441	847	54,441	847	44,042	37,791	594	42,684	671	41,649	655	41,649	655
2011	57,993	48,202	779	55,596	899	54,158	876	54,158	876	43,683	37,118	253	42,812	292	41,704	284	41,704	284
2010 5	56,283	47,951	804	57,050	957	55,522	931	55,522	931	43,179	36,888	240	43,888	286	42,712	278	42,712	278
2009	56,053	47,127	241	56,995	292	55,346	284	55,346	284	43,217	36,278	173	43,874	209	42,604	203	42,604	203
2008	59,861	46,367	238	55,881	287	54,198	278	54,198	278	44,156	35,745	174	43,079	210	41,782	204	41,782	204
2007	62,984	45,113	247	56,458	309	54,700	299	54,700	299	45,613	35,102	168	43,929	210	42,561	203	42,561	203
2006	63,055	42,261	145	54,389	186	52,537	180	52,537	180	44,663	32,515	305	41,846	392	40,421	379	40,421	379
2005	61,500	41,386	148	54,989	197	52,942	190	52,942	190	43,351	31,858	133	42,329	177	40,754	170	40,754	170
2004 ⁶	60,088	40,796	148	56,041	203	53,699	195	53,699	195	42,380	31,240	130	42,914	179	41,120	172	41,120	172
2003	58,772	40,668	148	57,375	209	54,872	200	54,872	200	41,908	30,724	137	43,346	193	41,455	185	41,455	185
2002	58,761	39,429	401	56,890	579	54,308	553	54,308	553	41,876	30,203	132	43,578	190	41,600	181	41,600	181
2001	58,712	38,275	424	56,095	622	53,375	592	53,375	592	41,639	29,215	272	42,817	398	40,741	379	40,741	379
2000 7	59,602	37,252	166	56,151	250	53,121	237	53,121	237	41,719	27,462	168	41,394	253	39,160	239	39,160	239
1999 ⁸	58,299	36,391	224	56,714	349	53,182	327	53,653	330	40,871	26,316	186	41,013	290	38,459	272	38,800	274
1998	56,951	35,345	219	56,257	348	52,424	324	53,221	329	38,785	25,862	194	41,163	309	38,358	288	38,942	292
1997	54,909	33,674	528	54,323	852	50,342	790	51,391	806	37,683	24,973	255	40,287	411	37,335	381	38,113	389
1996	53,787	32,144	189	52,976	312	48,892	288	50,117	295	36,430	23,710	273	39,076	450	36,064	415	36,967	426
1995 ⁹	52,667	31,496	189	53,290	320	48,930	294	50,414	303	35,482	22,497	225	38,064	381	34,950	350	36,010	360
1994 ¹⁰	51,580	30,854	204	53,462	353	48,942	323	50,577	334	34,155	22,205	181	38,475	314	35,222	287	36,399	297
1993 ¹¹	49,818	30,407	192	53,787	340	49,240	311	50,884	322	33,524	21,747	158	38,468	279	35,216	255	36,392	264
1992 ¹²	48,551	30,197	187	54,763	340	50,118	311	51,808	322	33,241	21,375	168	38,764	304	35,476	278	36,672	288
1991	47,888	29,421	364	54,682	676	50,131	620	51,731	640	32,436	20,553	161	38,200	300	35,021	275	36,138	284
1990	49,171	27,678	341	53,314	656	48,738	600	50,437	621	31,682	19,822	209	38,182	402	34,905	367	36,121	380
1989	49,678	27,331	184	55,242	372	50,240	338	52,261	352	31,340	18,769	207	37,936	419	34,501	381	35,889	396
1988	48,285	26,656	192	56,233	406	51,140	369	53,198	384	31,237	17,606	207	37,141	437	33,777	397	35,137	413
1987 ¹³	47,013	25,946	178	56,712	388	51,722	354	53,651	367	29,912	16,911	130	36,964	284	33,711	259	34,969	269
1986	45,912	25,256	178	57,103	402	51,899	365	54,021	380	28,420	16,232	140	36,700	316	33,355	287	34,719	299
1985 ¹⁴	44,943	24,195	232	55,662	534	50,800	487	52,658	505	27,383	15,624	135	35,944	310	32,805	283	34,004	293
1984 ¹⁵	43,808	23,218	196	55,248	466	50,449	426	52,266	441	26,466	14,780	143	35,169	341	32,114	311	33,271	323
1983	41,528	21,881	165	54,233	408	49,339	371	51,306	386	25,166	13,915	140	34,489	347	31,377	316	32,628	328

1982	40,105	21,077	146	54,472	378	49,549	344	51,532	358	23,702	13,014	145	33,633	374	30,593	340	31,818	354
1981	41,773	20,260	117	55,522	320	50,273	290	52,526	303	23,329	12,001	82	32,888	225	29,779	204	31,113	213
1980	41,881	18,612	155	55,821	464	50,321	418	52,809	439	22,859	11,197	81	33,582	242	30,273	218	31,770	229
1979 ¹⁶	42,437	17,014	110	56,743	368	50,955	330	53,681	348	22,082	10,151	85	33,854	285	30,401	256	32,027	270
1978	41,036	15,730	89	57,436	324	51,295	289	54,336	307	20,914	9,350	85	34,140	312	30,490	279	32,298	295
1977	39,263	14,626	114	57,067	443	51,013	396	53,987	419	19,238	8,618	64	33,625	250	30,058	223	31,810	237
1976 ¹⁷	38,184	13,455	87	55,811	362	49,982	324	52,799	342	18,073	8,099	66	33,595	273	30,086	244	31,782	258
1975 ¹⁸	37,267	12,758	82	55,965	361	49,993	322	52,945	342	17,452	7,504	62	32,917	274	29,404	245	31,141	259
1974 ^{18, 19}	37,916	11,863	84	56,316	398	50,359	356	53,277	377	16,945	6,970	56	33,088	266	29,588	238	31,302	252

¹ A margin of error (MOE) is a measure of an estimate's variability. The larger the MOE in relation to the size of the estimate, the less reliable the estimate. This number, when added to and subtracted from the estimate, forms the 90 percent confidence interval. MOEs shown in this table are based on standard errors calculated using replicate weights.

Note: Inflation-adjusted estimates may differ slightly from other published data due to rounding. Details of the Consumer Price Index for All Urban Consumers (CPI-U) are available at <www.bls.gov/cpi/questions-and-answers.htm>. The CPI Research Series Using Current Methods (R-CPI-U-RS) is described at <www.bls.gov/cpi/additional-resources/chained-cpi.htm>. The Chained Consumer Price Index for All Urban Consumers (C-CPI-U) is described at <www.bls.gov/cpi/additional-resources/chained-cpi.htm>. The Personal Consumption Expenditure Prices Index (PCEPI) is described at <www.bls.gov/cpi/additional-resources/chained-cpi.htm>. The Personal Consumption Expenditure Prices Index (PCEPI) is described at <www.bls.gov/cpi/additional-resources/chained-cpi.htm>. The Personal Consumption Expenditure Prices Index (PCEPI) is described at <www.bls.gov/cpi/additional-resources/chained-cpi.htm>. The Personal Consumption Expenditure Prices Index (PCEPI) is described at <www.bls.gov/cpi/additional-resources/chained-cpi.htm>. The Personal Consumption Expenditure Prices Index (PCEPI) is described at <www.bls.gov/cpi/additional-resources/chained-cpi.htm>. The Personal Consumption Expenditure Prices Index (PCEPI) is described at <www.bls.gov/cpi/additional-resources/chained-cpi.htm>. The Personal Consumption Expenditure Prices Index (PCEPI) is described at <www.bls.gov/cpi/additional-resources/chained-cpi.htm>. The Personal Consumption Expenditure Prices Index (PCEPI) is described at <www.bls.gov/cpi/additional-resources/chained-cpi.htm>. The Personal Consumption Expenditure Prices Index (PCEPI) is described at <www.bls.gov/cpi/additional-resources/chained-cpi.htm>. The Personal Consumption Expenditure Prices Index (PCEPI) is described at <www.bls.gov/cpi/additional-resources/chained-cpi.htm>. The Personal Consumption Expenditure Prices Index (PCEPI) is described at <www.bls.gov/cpi/additional-resources/chained-cpi.htm>. The Personal Consumption Expenditure Prices Index (PCEPI) is described at <www.bls.gov/cpi/additional-resources/chaine

Source: U.S. Census Bureau, Current Population Survey, 1975 to 2021 Annual Social and Economic Supplements (CPS ASEC).

² Estimates reflect the implementation of an updated processing system and should be used to make comparisons to 2018 and subsequent years.

³ The 2014 CPS ASEC included redesigned questions for income and health insurance coverage. All of the approximately 98,000 addresses were eligible to receive the redesigned set of health insurance coverage questions. The redesigned income questions were implemented to a subsample of these 98,000 addresses using a probability split panel design. Approximately 68,000 addresses were eligible to receive a set of income questions similar to those used in the 2013 CPS ASEC and the remaining 30,000 addresses were eligible to receive the redesigned income questions. The source of these 2013 estimates is the portion of the CPS ASEC sample which received the redesigned income questions, approximately 30,000 addresses.

⁴ The source of these 2013 estimates is the portion of the CPS ASEC sample which received the income questions consistent with the 2013 CPS ASEC, approximately 68,000 addresses.

⁵ Implementation of 2010 Census-based population controls.

⁶ Median earnings are calculated using \$2,500 intervals. Beginning with 2009 income data, the Census Bureau expanded the upper income intervals used to calculate medians to \$250,000 or more. Medians falling in the upper open-ended interval are plugged with "\$250,000." Before 2009, the upper open-ended interval was \$100,000 and a plug of "\$100,000" was used.

 $^{^{\}rm 7}$ Data have been revised to reflect a correction to the weights in the 2005 CPS ASEC.

⁸ Implementation of a 28,000 household sample expansion.

⁹ Implementation of 2000 Census-based population controls.

¹⁰ Full implementation of 1990 Census-based sample design and metropolitan definitions, 7,000 household sample reduction, and revised editing of responses on race.

¹¹ Introduction of 1990 Census sample design.

¹² Data collection method changed from paper and pencil to computer-assisted interviewing. In addition, the 1994 CPS ASEC was revised to allow for the coding of different income amounts on selected questionnaire items. Limits either increased or decreased in the following categories: earnings limits increased to \$999,999; social security limits increased to \$49,999; supplemental security income and public assistance limits increased to \$24,999; veterans' benefits limits increased to \$99,999; child support and alimony limits decreased to \$49,999.

¹³ Implementation of 1990 Census population controls.

¹⁴ Implementation of a new CPS ASEC processing system.

¹⁵ Recording of amounts for earnings from longest job increased to \$299,999. Full implementation of 1980 Census-based sample design.

¹⁶ Implementation of Hispanic population weighting controls and introduction of 1980 Census-based sample design.

¹⁷ Implementation of 1980 Census population controls. Questionnaire expanded to allow the recording of up to 27 possible values from a list of 51 possible sources of income.

¹⁸ First year medians were derived using both Pareto and linear interpolation. Before this year, all medians were derived using linear interpolation.

¹⁹ Some of these estimates were derived using Pareto interpolation and may differ from published data, which were derived using linear interpolation.

Table 6.

Median Earnings of Total Workers by Sex Using Alternative Price Indices: 1974 to 2020

(Earnings in 2020 dollars. People 15 years and older as of March of the following year beginning in 1980, and people 14 years old and older as of March of the following year for previous years. Before 1989 earnings are for civilian workers only. Information on confidentiality protection, sampling error, nonsampling error, and definitions is available at https://www2.census.gov/programs-surveys/cps/techdocs/cpsmar21.pdf. All results were approved for release by the U.S. Census Bureau, authorization number CBDRB-FY21-282.)

error, and defi	nitions is available a	t <nttps: th="" www<=""><th>z.census.gov/pr</th><th>ograms-surveys,</th><th>cps/tecnaocs/c</th><th>psmar21.pdf>. A</th><th>ui results were appr</th><th>oved for release by</th><th>Total Work</th><th></th><th>i number CBDRE</th><th>i-F121-282.)</th><th></th><th></th><th></th><th></th><th></th><th></th></nttps:>	z.census.gov/pr	ograms-surveys,	cps/tecnaocs/c	psmar21.pdf>. A	ui results were appr	oved for release by	Total Work		i number CBDRE	i-F121-282.)						
					Male			Female										
Year	Number of workers with earnings (thousands)	Current dollars		R-CPI-U-RS/current method			Chained CPI PCEPI (7-1999)	I-U (2000-2020) R-CPI-U-RS/cu (1967-		Number of workers with	Current	dollars	R-CPI-U-RS meth		Chained CPI- PCEPI (1967-1999)		-U (2000-2020) R-CPI-U-RS/current method (1967-1999)	
		Estimate	Margin of error ¹ (±)	Estimate	Margin of error ¹ (±)	Estimate	Margin of error ¹ (±)	Estimate	Margin of error ¹ (±)	earnings (thousands)	Estimate	Margin of error ¹ (±)	Estimate	Margin of error ¹ (±)	Estimate	Margin of error ¹ (±)	Estimate	Margin of error ¹ (±)
2020	87,599	49,389	919	49,389	919	49,389	919	49,389	919	79,248	35,838	305	35,838	305	35,838	305	35,838	
2019	89,023	48,769	822	49,378	832	49,293	831	49,293	831	80,779	35,836	266	36,273			269	36,210	
2018	88,115	46,741	406	48,182	419		417	47,930	417	79,440	32,654	691	33,661	712		708	33,485	708
2017 ²	88,020	45.067	674	47,589	712	47,146	705	47,146	705	78,291	31,887	190	33,671	201	33,358	199	33,358	199
2017	88,101	44,408	1,227	46,893	1,296	46,456	1,284	46,456	1,284	78,196	31,610	171	33,379	181	33,068	179	33,068	179
2016	86,886	42,220	235	45,541	254	44,946	251	44,946	251	77,742	30,882	202	33,311	218	32,876	215	32,876	215
2015	86,435	41,615	231	45,468	252	44,717	248	44,717	248	76,974	30,246	176	33,046	192	32,500	189	32,500	189
2014	84,494	40,638	214	44,477	234	43,614	229	43,614	229	75,572	28,394	474	31,076	519	30,473	509	30,473	509
2013 ³	83,855	40,229	499	44,775	555	43,800	543	43,800	543	74,821	27,390	464	30,485	516	29,821	505	29,821	505
2013 4	83,555	39,903	719	44,412	800	43,445	783	43,445	783	74,545	27,736	598	30,870	666	30,198	651	30,198	651
2012	83,003	37,916	681	42,825	769	41,786	750	41,786	750	74,188	26,882	226	30,363	255	29,627	249	29,627	249
2011	81,366	37,341	273	43,069	315	41,955	307	41,955	307	73,094	26,550	217	30,623	250	29,831	244	29,831	244
2010 5	80,856	36,784	261	43,764	311	42,592	303	42,592	303	72,716	26,503	215	31,532		/	249	30,687	249
2009	81,934	36,331	194	43,938	235	42,667	228	42,667	228	72,972	26,030	153	31,480		30,569	180	30,569	180
2008	84,039	36,568	176	44,071	212	42,744	206	42,744	206	74,538	25,650	159	30,913	192	- /	186	29,982	186
2007	84,482	36,635	174	45,848	218		211	44,420	211		25,878	149	32,386			181	31,378	
2006	83,928 82,934	35,879	176	46,175	227 614	44,603	219 591	44,603	219 591	73,683 72,476	24,466	252	31,487	324 313	30,415 29,517	313 301	30,415 29,517	313 301
2005 2004 ⁶	82,934 81,448	34,349 32,483	462	45,639 44,622	364	43,940	349	43,940 42,757	349		23,074 22,256	236 130	30,658	179		172	29,517	172
2004	80,508	32,483	265 130	45,214	183	42,757 43,241	175	42,757	175		22,236	133	30,573 31,043			180	29,293	
2003	80,508	31,647	135	45,662	195	43,589	186	43,241	186		21,429	123	30,919			170	29,588	
2001	80,209	31,364	130	45,967	190	43,738	181	43,738	181	71,232	20,851	130	30,559	190		181	29,077	181
2000 7	80,494	30,951	128	46,653	193	44,135	183	44,135	183	71,657	20,267	127	30,549		28,900	181	28,900	
1999 ⁸	79,322	30,079	239	46,877	372	43,958	349	44,347	352	-	18,440	266	28,738			389	27,187	393
1998	77,295	28,755	383	45,768	610		568	43,298	577		17,716	265	28,198			393	26,676	399
1997	76,694	26,843	201	43,303	324	40,130	300	40,966	307	67,736	16,716	178	26,966			266	25,511	272
1996	76,121	25,785	202	42,496	333	39,220	307	40,203	315	66,661	16,028	180	26,415	296	24,379	273	24,989	280
1995 ⁹	74,619	25,018	260	42,330	440	38,867	404	40,046	416	65,557	15,322	168	25,924	284	23,803	261	24,525	269
1994 ¹⁰	74,264	23,656	304	40,989	527	37,524	482	38,777	499	64,706	14,323	215	24,818	373	22,720	341	23,479	353
1993 ¹¹	73,198	22,443	215	39,700	381	36,344	349	37,558	360	63,660	13,896	224	24,581	396	22,503	363	23,254	375
1992 ¹²	73,120	21,903	189	39,721	343	36,352	314	37,577	324	62,408	13,527	221	24,531	400	22,450	366	23,207	378
1991	72,040	21,857	181	40,624	336	37,243	308	38,432	318	61,796	12,884	206	23,946	382	21,953	350	22,654	361
1990	72,348	21,522	168	41,456	323	37,898	295	39,219	306	- , -	12,250	131	23,596	253		231	22,323	239
1989	72,045	21,376	171	43,205	346	39,293	315	40,873	327	61,338	11,736	128	23,721	259		236	22,441	245
1988	70,467	20,612	186	43,483	392	39,545	356	41,136	371	60,658	11,096	130	23,408	274		249	22,145	259
1987 ¹³	69,545	19,818	238	43,318	521	39,506	475	40,980	493	,	10,619	115	23,211	252		230	21,958	
1986	68,728	18,782	229	42,466	517	38,596	470	40,174	489	-	10,016	137	22,646			281	21,424	
1985 14	67,809	17,779	222	40,901	511	37,329	466	38,694	483	56,296	9,328	155	21,459		-,	325	20,301	337
1984 ¹⁵	66,454	17,026	156	40,514	372	36,995	340	38,328	352		8,675	138	20,642	329		300	19,528	311
1983	65,138	16,072	145	39,835	359	36,240	327	37,685	340		8,230	99	20,398	245		223	19,297	232
1982	64,730	15,373	143	39,730	370		337	37,586	350		7,686	92	19,864			216	18,792	225
1981	65,233	15,061	142	41,274	388	37,372	351	39,047	367	51,940	7,222	85	19,792			212	18,724	
1980	64,730	14,011	160	42,022	479	37,882	432	39,754	453	51,448	6,624	89	19,867	266	17,910	240	18,795	252

1979 ¹⁶	64,648	12,948	143	43,183	477	38,779	428	40,853	451	50,897	5,977	84	19,934	280	17,901	251	18,858	265
1978	62,903	12,133	97	44,302	354	39,566	316	41,911	335	48,398	5,249	79	19,166	288	17,117	257	18,132	272
1977	61,704	11,037	94	43,064	366	38,495	327	40,740	346	46,194	4,674	67	18,237	263	16,302	235	17,253	249
1976 ¹⁷	60,450	10,301	77	42,728	321	38,265	287	40,422	304	44,565	4,296	66	17,820	273	15,959	244	16,858	258
1975 ¹⁸	59,268	9,674	85	42,436	375	37,908	335	40,146	355	42,926	3,953	69	17,340	303	15,490	271	16,404	287
1974 ^{18, 19}	59,866	9,121	N	43,299	N	38,719	N	40,962	N	42,854	3,563	N	16,914	N	15,125	N	16,001	N

N Not available.

¹ A margin of error (MOE) is a measure of an estimate's variability. The larger the MOE in relation to the size of the estimate, the less reliable the estimate. This number, when added to and subtracted from the estimate, forms the 90 percent confidence interval. MOEs shown in this table are based on standard errors

² Estimates reflect the implementation of an updated processing system and should be used to make comparisons to 2018 and subsequent years.

³ The 2014 CPS ASEC included redesigned questions for income and health insurance coverage. All of the approximately 98,000 addresses were eligible to receive the redesigned set of health insurance coverage questions. The redesigned income questions were implemented to a subsample of these 98,000 addresses

⁴ The source of these 2013 estimates is the portion of the CPS ASEC sample which received the income questions consistent with the 2013 CPS ASEC, approximately 68,000 addresses.

⁵ Implementation of 2010 Census-based population controls.

⁶ Median earnings are calculated using \$2,500 intervals. Beginning with 2009 income data, the Census Bureau expanded the upper income intervals used to calculate medians to \$250,000 or more. Medians falling in the upper open-ended interval are plugged with "\$250,000." Before 2009, the upper open-ended

⁷ Data have been revised to reflect a correction to the weights in the 2005 CPS ASEC.

⁸ Implementation of a 28,000 household sample expansion.

⁹ Implementation of 2000 Census-based population controls.

10 Full implementation of 1990 Census-based sample design and metropolitan definitions, 7,000 household sample reduction, and revised editing of responses on race.

¹¹ Introduction of 1990 Census sample design.

12 Data collection method changed from paper and pencil to computer-assisted interviewing. In addition, the 1994 CPS ASEC was revised to allow for the coding of different income amounts on selected questionnaire items. Limits either increased or decreased in the following categories: earnings limits increased to

13 Implementation of 1990 Census population controls.

¹⁴ Implementation of a new CPS ASEC processing system.

¹⁵ Recording of amounts for earnings from longest job increased to \$299,999. Full implementation of 1980 Census-based sample design.

¹⁶ Implementation of Hispanic population weighting controls and introduction of 1980 Census-based sample design.

¹⁷ Implementation of 1980 Census population controls. Questionnaire expanded to allow the recording of up to 27 possible values from a list of 51 possible sources of income.

¹⁸ First year medians were derived using both Pareto and linear interpolation. Before this year, all medians were derived using linear interpolation.

¹⁹ Some of these estimates were derived using Pareto interpolation and may differ from published data, which were derived using linear interpolation.

Note: Inflation-adjusted estimates may differ slightly from other published data due to rounding. Details of the Consumer Price Index for All Urban Consumers (CPI-U) are available at <www.bls.gov/cpi/questions-and-answers.htm>. The CPI Research Series Using Current Methods (R-CPI-U-RS) is described at <www.bls.gov/cpi/additional-resources/chained-cpi.htm>. The Chained Consumption Expenditure Prices Index (PCEPI) is described at <www.bls.gov/cpi/additional-resources/chained-cpi.htm>. The Personal Consumption Expenditure Prices Index (PCEPI) is described at <www.bls.gov/cpi/additional-resources/chained-cpi.htm>. The Personal Consumption Expenditure Prices Index (PCEPI) is described at <www.bls.gov/cpi/additional-resources/chained-cpi.htm>. The Personal Consumption Expenditure Prices Index (PCEPI) is described at <www.bls.gov/cpi/additional-resources/chained-cpi.htm>. The Personal Consumption Expenditure Prices Index (PCEPI) is described at <www.bls.gov/cpi/additional-resources/chained-cpi.htm>. The Personal Consumption Expenditure Prices Index (PCEPI) is described at <www.bls.gov/cpi/additional-resources/chained-cpi.htm>. The Personal Consumption Expenditure Prices Index (PCEPI) is described at <www.bls.gov/cpi/additional-resources/chained-cpi.htm>. The Personal Consumption Expenditure Prices Index (PCEPI) is described at <www.bls.gov/cpi/additional-resources/chained-cpi.htm>. The Personal Consumption Expenditure Prices Index (PCEPI) is described at <www.bls.gov/cpi/additional-resources/chained-cpi.htm>. The Personal Consumption Expenditure Prices Index (PCEPI) is described at <www.bls.gov/cpi/additional-resources/chained-cpi.htm>. The Personal Consumption Expenditure Prices Index (PCEPI) is described at <www.bls.gov/cpi/additional-resources/chained-cpi.htm>. The Personal Consumption Expenditure Prices Index (PCEPI) is described at <www.bls.gov/cpi/additional-resources/chained-cpi.htm>. The Personal Consumption Expenditure Prices Index (PCEPI) is described at <www.bls.gov/cpi/additional-resources/chained-cpi.htm>

Source: U.S. Census Bureau, Current Population Survey, 1975 to 2021 Annual Social and Economic Supplements (CPS ASEC).